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ABSTRACT

This 36-level occupational component of Integrated Occupational Program (IOP) consists of 8 occupational clusters composed of 20 occupational courses. Each course contains learning activities so that students in Alberta (Canada) may develop occupational concepts, skills, and attitudes. This teacher's manual consists of the following sections: introduction; using the manual; learning resources; concepts, skills, and attitudes; suggested teaching strategies; teacher support material; achievement profiles; and copyright acknowledgements. The IOP occupational component consists of 10 strands of generic skills: introductory; organizational; communication; reading; writing; mathematical; visual; entrepreneurship; community partnerships; and work. The generic skills curriculum component is common to each of the occupational courses. Each skill section contains some or all of the following: skills; definition; resources; correlation of learning objectives with student resources; teaching resources; suggested activities; and resources (activities, worksheets, etc.). Teacher support material consists of 20 occupational course sequences: agricultural mechanics; agricultural production; horticultural services; business services; office services; building services; construction services; crafts and art; technical arts; natural resource services; child and health care services; esthetology; fashion and fabric services; hair care; commercial food preparation; food services; maintenance and hospitality services; automotive services; service station services; and warehouse services. For each course are listed sequence, entrance requirement, facilities, equipment, tools, and other learning resources. (NLA)

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INTEGRATED OCCUPATIONAL PROGRAM

Teacher Resource Manual

OCCUPATIONAL COMPONENT

36-LEVEL COURSES

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Occupational Component

36-Level Courses

Teacher Resource Manual

1992

Note: This publication is a support document. The advice and direction offered is suggestive except where it duplicates or paraphrases the contents of the Program of Studies.

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ASSOCIATE DIRECTOR: A.A. (Scotty) Day

INTEGRATED OCCUPATIONAL PROGRAM MANAGER: Michael Alpern

PROGRAM MANAGER, OCCUPATIONAL COMPONENT: Michael Alpern

INTEGRATED OCCUPATIONAL PROGRAM PROJECT TEAM

Gary Bertrand
Lorraine Crawford
Paul McNair
Glen O'Neil
Linda Snow

INTEGRATED OCCUPATIONAL PROGRAM REVIEW COMMITTEE

Stuart Adams	–	County of Strathcona No. 20
Pat Boon-Anderson	–	Lac La Biche School Division No. 51
Christopher Harrison	–	Alberta Vocational College, Edmonton
Ed (Edwin) Holt	–	Conference of Alberta School Superintendents
Wayne Nixon	–	Alberta Career Development and Employment
William Smolak	–	Alberta Teachers' Association
Carol Steen	–	Lethbridge School District No. 51
Doug Tarney	–	Wetaskiwin School District No. 264
Greg Thomas	–	Alberta Education

EDITING:	Lisa McCardle
COPY EDITING:	Kim Blevins Esther Yong
DESKTOP PUBLISHING:	Lin Gray Tania Pander
GRAPHICS:	Jennifer Annesley
SECRETARIAL:	Rita Flint

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INTRODUCTION

The Integrated Occupational Program (IOP) is designed to assist students who experience difficulty in the regular junior high (Grades 8 and 9) and senior high school program (Levels 16–26–36) and, subsequently, to provide students with a smooth transition to productive lives in the workplace. One key to achieving this transition successfully is the acquisition of a set of generic and occupational-related workskills.

The Integrated Occupational Program is designed specifically to provide students with the entry-level competencies, concepts, skills and attitudes, that will enable them to become good citizens and capable and reliable workers. The entry-level job skills students attain in the Integrated Occupational Program should be viewed as a starting point rather than the culmination of their education and training. As students gain on-the-job experience, they will be able to advance up a career ladder in their chosen career area.

GOALS OF THE INTEGRATED OCCUPATIONAL PROGRAM

The specific goals of the program are to:

- develop the essential concepts, skills and attitudes for responsible participation in the home, the community and the workplace
- provide learning opportunities that will enable students to experience success and achievement in order to enhance their self-esteem and independence
- promote lifelong learning.

This teacher resource manual is designed to serve as a practical planning and instructional tool. It has been developed to assist teachers in implementing each of the twenty courses that comprise the 36-level occupational component of the Integrated Occupational Program.

The manual contains specific information regarding:

- course organization
- cooperative planning
- required/elective components
- community partnerships
- instructional strategies
- teacher support material.

USING THE MANUAL

ORGANIZATION OF THE OCCUPATIONAL COURSES

The 36-level occupational component of the Integrated Occupational Program consists of eight occupational clusters composed of twenty occupational courses. (See IOP Occupational Component Overview, page 3.)

Each course contains learning activities that provide the vehicle through which students may develop the concepts, skills and attitudes outlined as generic learning objectives in the *IOP Occupational Component 16–26–36 Program of Studies*. Additional occupational-related learning objectives, outlined as work skills learning objectives, are stated in the scope and sequence chart provided for each of the twenty occupational courses in the *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide*.

COOPERATIVE PLANNING

In schools where more than one teacher is responsible for providing instruction in the occupational component, cooperation among teachers for course delivery will ensure that students acquire the ability to transfer the concepts, skills and attitudes learned in one occupational course to other occupational courses.

IOP OCCUPATIONAL COMPONENT OVERVIEW

	Level 16	Level 26	Level 36
Developmental Concept	Exploration	Orientation	Preparation
Primary Experiential Objective	To explore, reason, experiment and discover skills related to families of occupations.	To explore, experiment and practise skills related to one or more occupational areas.	To practise and develop entry-level skills in one or more occupational areas.
Suggested Instructional Orientation (a) School (b) Community Partnerships*	 80% 20%	 70% 30%	 60% 40%
Credits Per Course	(3 or 5 credits) 75–125 hours	(10 credits) 250 hours	(10 credits) 250 hours
Minimum Requirement	4 × 3-credit courses, or 2 × 5-credit courses	Two-course sequences	One-course sequence
Evaluation	Attitude, Achievement, Competency	Attitude, Achievement, Increased Competency	Attitude, Achievement, Entry-level Competency
AGRIBUSINESS 1. Agricultural Mechanics	1. Exploration of terms, tools and techniques of basic carpentry, metalwork and welding.	1. Orientation to arc welding, blueprint reading, small engine maintenance and painting.	1. Preparation for employment and skill development in basic concrete work, electricity, forge work and soldering.
2. Agricultural Production	2. Exploration of terms, tools and techniques related to land and soil products.	2. Orientation to further land usage and animal production.	2. Preparation for entry-level jobs. Further development of land/soil products; an increased emphasis on animal production.
3. Horticultural Services	3. Exploration of terms, tools and techniques of lawn and garden care.	3. Orientation to skill development in horticulture and basic floriculture.	3. Preparation for employment in greenhouse care, gardening and floriculture.
BUSINESS AND OFFICE OPERATIONS 1. Business Services	1. Exploration of terms, tools and techniques related to jobs in sales, service and courier work.	1. Orientation to retailing, cashier duties, keyboarding and telephone techniques.	1. Preparation for employment; development of entry-level job skills in business services and sales.
2. Office Services	2. Exploration of terms, tools and techniques related to office work and consumer awareness.	2. Orientation to common office operations including keyboarding, filing, duplicating, mail handling and telephone techniques.	2. Preparation for entry-level employment and further development of consumer awareness.
CONSTRUCTION AND FABRICATION 1. Building Services	1. Exploration of terms, tools and techniques related to subtrade work including tool use and care, woodwork and fasteners.	1. Orientation to framing, roofing, scaffold use and flooring.	1. Preparation for helper roles or apprenticeship articulation. Additional skill options include painting, concrete work, bricklaying and glasswork.
2. Construction Services	2. Exploration of terms, tools and techniques related to general piping, blueprint reading, and tool use and care.	2. Orientation to option areas including heating, gasfitting, electrical, welding and insulation services.	2. Preparation for helper roles or apprenticeship articulation in one of the trade areas.

*The percentage figures given for the community partnership component are recommended minimal guidelines. Schools that do not have extensive on-site facilities will undoubtedly use community work sites to a much higher degree.

	Level 16	Level 26	Level 36
Developmental Concept	Exploration	Orientation	Preparation
CREATIVE ARTS			
1. Crafts and Arts	1. Exploration of terms, tools, materials and techniques of craft and art work.	1. Orientation to skill development in specific crafts and arts.	1. Preparation for entry-level employment and/or entrepreneurial activity in creative arts/cottage crafts industry.
2. Technical Arts	2. Exploration of terms, tools, materials and techniques of graphic arts, media arts, photography and related arts.	2. Orientation to skill development in one or more technical or related arts areas.	2. Preparation for entry-level employment and/or entrepreneurial activity in one of the technical or related arts.
NATURAL RESOURCES			
1. Natural Resource Services	1. Exploration of terms, tools and techniques used by workers in three natural resource industries: a. Oil and Gas b. Forestry c. Mining.	1. Orientation to specific knowledge and skills related to one or more of three natural resource industries: a. Oil and Gas b. Forestry c. Mining.	1. Preparation for employment in one or more of the natural resource industries: a. Oil and Gas b. Forestry c. Mining.
PERSONAL AND PUBLIC SERVICES			
1. Child and Health Care Services	1. Exploration of services provided to children, the aged and the infirm.	1. Orientation to principle of child care, baby-sitting, child safety, care of adults, home duties and basic nutrition.	1. Preparation for day-care employment, residential aide or nursing assistant.
2. Esthetology	2. Exploration of terms, tools and grooming services used on face, feet and head.	2. Orientation to facial shapes and care, eyebrow arching, false lash application, manicure and pedicure.	2. Preparation for employment. Increased skill development and sales training.
3. Fashion and Fabric Services	3. Exploration of garment care and cleaning, and the fashion merchandising fields.	3. Orientation to fashion and fabrics. Basic skill development in repair and cleaning of clothes.	3. Preparation for employment in fashion sales or laundry/cleaning operations.
4. Hair Care	4. Exploration of terms, tools and treatments related to natural hair and wig care.	4. Orientation to basic setting and styling, cutting, hair analyses and hair goods.	4. Preparation for entry-level employment as beautician's assistant, wig dresser or articulation with Alberta apprenticeship.
TOURISM AND HOSPITALITY			
1. Commercial Food Preparation	1. Exploration of terms, tools and techniques of commercial food production.	1. Orientation to basic methods of food preparation, breakfast cookery and correct operations behaviour.	1. Preparation for entry-level employment. Prepare meats, vegetables, desserts and garnishes.
2. Food Services	2. Exploration of terms, tools and techniques of serving food and beverages.	2. Orientation to skill development, inside work, guest relations, sales and service.	2. Preparation for entry-level employment as waiter/waitress, bus person, in food service establishments.
3. Maintenance and Hospitality Services	3. Exploration of terms, tools and techniques of building maintenance and hotel/motel support services.	3. Orientation to carpet and upholstery care, floor care and special area maintenance.	3. Preparation for entry-level employment as maintenance worker, security guard, houseman/chambermaid, bellhop or desk clerk.
TRANSPORTATION			
1. Automotive Services	1. Exploration of terms, tools and techniques of automotive care and maintenance.	1. Orientation to engines and engine systems, tool and equipment care, replacement and mechanical services.	1. Preparation for entry-level employment as automotive helper or articulation with Alberta apprenticeship.
2. Service Station Services	2. Exploration of terms, tools and techniques used in service station operations.	2. Orientation to sales and service, hoisting, lifting, wheels and tires, basic safety inspection.	2. Preparation for entry-level employment as service station attendant and/or automotive helper.
3. Warehouse Services	3. Exploration of terms, tools and techniques of warehousing, stock-keeping and inventory management.	3. Orientation to lifting, carrying, packing, boxing, wrapping, record keeping and receiving.	3. Preparation for entry-level employment as warehouse worker, stock-keeper, assistant shipper or receiver.

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Teachers are encouraged to examine each course and its corresponding student workbook and teacher support material well in advance of instruction to ensure that all necessary materials are obtained. The activities and suggestions provided within each course are numerous.

Advance planning should include a synthesis of effective strategies from the teacher's repertoire of personal experience, with suggestions from the manual considered most appropriate to individual student needs. In addition, advance planning will enable teachers to integrate the teaching and learning of the generic concepts, skills and attitudes in the context of each work skill. The Planning Matrix (page 8) may be used for this purpose. For example, as teachers prepare for instruction, the relationship of each generic skill/work skill may be identified and noted on the planning matrix.

GENERIC SKILLS

Generic skills are also known as basic, functional or transferable skills. These concepts, skills and attitudes are common to most work and life situations, are learned through experience in the home, the school, the community, the workplace, and are applicable to all IOP occupational clusters and courses.

The generic skills comprise the required component of each occupational course. The related concepts, skills and attitudes are grouped into ten interrelated strands:

1. Introductory Skills
2. Organizational Skills
3. Communication Skills
4. Reading Skills
5. Writing Skills
6. Mathematical Skills
7. Visual Skills
8. Entrepreneurship
9. Community Partnerships
10. Work Skills.

Specific generic skills noted with the letter "E" are elective learning objectives.

WORK SKILLS

The work skills strand of the generic skills component are transferable among all of the occupational courses. A more job/career specific series of work skills is outlined in the scope and sequence chart provided for each occupational course in the *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide*.

The former series of work skills are part of the required component of each occupational course. The latter series of work skills comprise the elective component of each occupational course.

REQUIRED AND ELECTIVE COMPONENTS

The required component of each occupational course consists of those learning objectives outlined as generic skills in the *IOP Occupational Component 16–26–36 Program of Studies*. The elective component of each occupational course consists of specific generic learning objectives (those indicated by "E") and the work skills learning objectives outlined in the scope and sequence chart for each occupational course and contained in the *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide*.

The 36-level occupational course(s) taken by students should enable them to achieve both the generic learning objectives and the majority of the job/career oriented learning objectives outlined as work skills for each occupational course.

Teachers are required to provide opportunities for enrichment and remediation through the elective component of each occupational course. The recommended time distribution for each occupational component of these courses is:

Course Component	Percentage Time Allocation		
	16-Level	26-Level	36-Level
Generic Learning Objectives	50	40	30
Work Skills Objectives	30	40	50
Elective Component	20	20	20

The elective component of each course may take the form of:

- enrichment activities
    - additional teacher developed activities and job sheets for students
    - additional community partnerships including mentorships, job shadowing, customer services and work site placements
    - student initiated learning activities.
- remediation activities
    - alternative teacher developed activities and job sheets for students
    - reinforcement and review of specific concepts, skills and attitudes
    - additional community partnerships including mentorships, job shadowing, customer services and work site placements.

EVALUATING AND REPORTING STUDENT ACHIEVEMENT

Provincial policy requires each school authority to develop and implement procedures for student evaluation. Student achievement in each completed occupational course (as well as other high school credit courses) must be reported to the Student Evaluation Branch as a percentage. In order to earn credits for an occupational course, students must achieve at least 50% (i.e., a "C" standing). The use of profiles is intended to complement the provincial grading system, and provide additional information about learning outcomes and the criteria used to establish student grades.

A variety of criteria should be used and combined in order to establish course grades and correlate student marks with the level of achievement. Students who are assigned similar course grades should receive profiles that reflect similar levels of performance and achievement. Although teachers of occupational courses have the responsibility to assess and document student performance, the evaluation process should occur through the collaborative efforts of teachers, administrators and community partners who have contributed to each student's education and training. Assessment and evaluation within each occupational course should involve the use of a variety of techniques and sources of information (e.g., observation, interviews, inventories/checklists, project work, anecdotal records, written assignments, self and peer evaluations), and should focus attention on criteria most likely to enhance the student's chances for future success. Assessment should reflect:

- a balance among cognitive, affective and psychomotor components of learning
- level of proficiency in the processes as well as the products of work (e.g., Can the student work without supervision? Can the student adapt to non-routine situations?)
- social development and ability to interact positively with others
- ability to transfer and apply competencies developed in the core subjects (e.g., reading, writing, mathematics, science) to work-related situations
- competencies developed in the safe and sanitary use of equipment, tools and supplies.

A number of instruments that may be used to record and report student progress and achievement are included in this document.

- Generic Skills Evaluation Chart (pages 10–16)
- Monthly Performance Evaluation Report (page 273)
- Student Behaviour and Performance Evaluation Chart (page 274)
- Achievement Profiles (page 353)

PLANNING MATRIX
(INTEGRATING GENERIC SKILLS* WITH WORK SKILLS IN IOP OCCUPATIONAL COURSES)

COURSE WORK SKILLS	*CONCEPTS, SKILLS AND ATTITUDES																
	INTRODUCTORY SKILLS					ORGANIZATIONAL SKILLS					COMMUNICATION SKILLS	READING SKILLS	WRITING SKILLS	MATHEMATICAL SKILLS	VISUAL SKILLS	ENTREPRENEURSHIP	COMMUNITY PARTNERSHIPS
	C.A.	J.S.	H.R.	S.E.	S.	W.E.	P.O.	TIM.	TAM.	W.S.							
e.g., Demonstrates safe and correct use of tools and equipment	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
e.g., Identifies local suppliers	✓	✓	✓			✓	✓	✓	✓		✓	✓			✓		✓

C.A. – Career Awareness; J.S. – Job Search; H.R. – Human Relations; S.E. – Sanitation and the Environment; S. – Safety; W.E. – Work Ethics; P.O. – Planning and Organization; TIM. – Time Management; TAM. – Task Management; W.S. – Work Standards

DEVELOPING INTERPERSONAL SKILLS

Each occupational course offers many opportunities for enhancing students' interpersonal skills. Student activities performed in group settings may afford opportunities to address social interaction. A strategy for systematically analyzing a social problem is provided in the "Suggested Teaching Strategies" section of this manual (SPOT: A Social Problem-solving Strategy). This strategy helps students to identify:

- reasons for the difficulty/conflict
- strategies that may help to avoid the difficulty/conflict another time.

Teacher modelling and student use of this strategy may improve the classroom climate, and enable students to gain confidence in their ability to interact effectively and communicate with one another.

DEVELOPING DECISION-MAKING AND PROBLEM-SOLVING SKILLS

Active participation of students is encouraged through the use of decision-making models as well as problem-solving strategies. A sample decision-making and problem-solving model is outlined in the curriculum guide and additional problem-solving models are suggested in this document.

Additional strategies, designed to enhance students' thinking abilities, are identified throughout the *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide*.

INSTRUCTIONAL LOCATIONS

Each occupational course is designed to be taught in partnership between the school and one or more related businesses or industries in a community. In-school demonstrations and presentations should be complemented with a variety of field experiences including field trips, job shadowing, work study or other suitable and approved arrangements. Whenever and wherever possible, students should be provided with opportunities to work and learn alongside representatives from the occupation cluster/course being taught.

In all occupational courses, the generic component should be taught by a certified teacher. Where appropriate, the work skills may be taught through school and community partnership arrangements.

GENERIC SKILLS EVALUATION CHART

Student: ______________________

Course: ______________________

Teacher: ______________________

Date: ______________________

Introductory Skills	Excellent	Very Good	Good	Not Acceptable
1. Identifies related businesses/industries.				
2. Identifies personal knowledge and skills.				
3. Identifies available jobs/careers in interest areas.				
4. Identifies opportunities for further education/training.				
5. Reviews business-/industry-related terms.				
6. Writes letters of application.				
7. Prepares a résumé.				
8. Completes application forms.				
9. Identifies and contacts references.				
10. Practises networking.				
11. Practises job interview techniques.				
12. Applies for a job.				
13. Identifies related unions and associations.				
14. Identifies positive traits in self and others.				

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Introductory Skills (continued)	Excellent	Very Good	Good	Not Acceptable
15. Demonstrates good interpersonal relationships.				
16. Demonstrates personal growth in human relationships.				
17. Demonstrates ability to deal with conflict.				
18. Demonstrates self-esteem building strategies.				
19. Identifies personnel in local businesses/industries.				
20. Establishes contacts with local businesses/ industries.				
21. Demonstrates appropriate workplace behaviour.				
22. Demonstrates appropriate dress for the workplace.				
23. Practises personal hygiene.				
24. Demonstrates ability to perform public hygiene practices.				
25. Demonstrates sanitary work behaviour.				
26. Recognizes how infections and diseases are controlled in local businesses/industries.				
27. Describes occupational health and safety regulations.				
28. Demonstrates entry-level safety ability.				
29. Uses equipment, tools and supplies according to manufacturer's instructions.				

Organizational Skills	Excellent	Very Good	Good	Not Acceptable
30. Describes work ethics of related occupations.				
31. Demonstrates ethical behaviour.				
32. Demonstrates willingness to work.				
33. Demonstrates dependability.				
34. Demonstrates concern for others.				
35. Demonstrates pride in work.				
36. Follows instructions.				
37. Develops a complex task plan.				
38. Follows a complex task plan.				
39. Implements a complex task plan.				
40. Demonstrates time–task skills.				
41. Meets task deadlines.				
42. Works to specifications.				
43. Uses equipment, tools and supplies correctly.				
44. Conserves supplies.				
45. Cleans work area when task is completed.				
46. Demonstrates the ability to provide proper service.				
47. Works to specified standards.				
48. Demonstrates initiative.				

Communication Skills	Excellent	Very Good	Good	Not Acceptable
49. Identifies types of communication in local businesses/industries.				
50. Demonstrates ability to communicate effectively.				
51. Demonstrates effective interview strategies.				
52. Uses the telephone correctly.				
Reading Skills				
53. Reads and interprets occupation-related literature.				
54. Reads related health and safety documents.				
55. Reads and interprets employment documents.				
56. Uses resource centres.				
57. Follows written instructions.				
58. Deals with conflicting instructions.				
Writing Skills				
59. Writes in related paragraphs.				
60. Writes a résumé.				
61. Writes a job description.				
62. Submits job application forms.				

Mathematical Skills	Excellent	Very Good	Good	Not Acceptable
63. Uses SI metric units of measurement.				
64. Uses imperial units of measurement.				
65. Solves practical mathematical problems.				
66. Applies ratio, proportion, per cent in occupational contexts.				
67. Calculates hourly, weekly, monthly income.				
68. Calculates costs, sales, commissions, profit.				
69. Handles cash, cheque and credit transactions.				
Visual Skills				
70. Responds appropriately to occupation-related signs and symbols.				
71. Constructs a chart or graph related to an occupational area.				
Entrepreneurship				
72. Identifies local entrepreneurs.				
73. Identifies traits of entrepreneurs.				
74. Identifies steps necessary to start a small business.				
75. Initiates a small business.				

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Community Partnerships	Excellent	Very Good	Good	Not Acceptable
76. Prepares for employment.				
77. Demonstrates appropriate work habits.				
78. Demonstrates effective human relations techniques.				
79. Practises safety.				
80. Demonstrates acceptable verbal/non-verbal communication skills.				
81. Practises personal/public hygiene procedures.				
82. Demonstrates entry-level competency in tools and equipment usage.				
83. Uses supplies correctly.				
84. Follows good storage practices.				
85. Demonstrates pride in work.				
86. Demonstrates willingness to work.				
87. Demonstrates respect for others.				
88. Follows accepted principles and procedures.				
89. Recognizes opportunities for further education/ training.				

Work Skills	Excellent	Very Good	Good	Not Acceptable
90. Selects a career path.				
91. Recognizes equipment, tools and supplies.				
92. Uses equipment, tools and supplies correctly.				
93. Works to accepted standards.				
94. Manages supplies efficiently.				
95. Maintains a professional work area.				

LEARNING RESOURCES

STUDENT LEARNING RESOURCES

BASIC LEARNING RESOURCE

The resource listed below meets the majority of the goals and objectives identified in this curriculum:

Campbell, Richard and Mary J. Thompson, et al. *Working: Today and Tomorrow* (Canadian Edition). Toronto, Ontario: Irwin Publishing, 1990.

Working: Today and Tomorrow provides for the focused development of the generic concepts, skills and attitudes identified in the *IOP Occupational Component 16–26–36 Program of Studies*. It is intended that appropriate sections of the text be used throughout the sequence of each occupational course, Levels 16–26–36.

SUPPORT LEARNING RESOURCES

A student workbook is available for each occupational course. The workbook related to each 36-level occupational course provides students with information, exercises and job sheets that follow the scope and sequence of concept, skill and attitude development identified in the profile contained in each student workbook.

The specific activities and projects contained in the workbooks are not meant to be prescriptive or exhaustive; rather, they may provide points on which to focus the development of specific learning related to an occupational cluster.

Teachers are encouraged to complement and supplement the material contained in student workbooks to meet individual student's needs.

TEACHING RESOURCES

The teaching resources listed below are designed to support the instructional use of the basic learning resources:

The *IOP Occupational Component 36-level Courses Teacher Resource Manual*, 1992 by Alberta Education contains strategies and suggested student activities intended to structure and support:

- development of the concepts, skills and attitudes as outlined in the *IOP Occupational Component 16–26–36 Program of Studies*
- development of life and work skills
- delivery of instruction in each occupational course.

Other learning resources listed in the teacher support material in this document have been identified as potentially useful for integrating instruction of the generic concepts with the work skills. Except where designated, these titles have not been evaluated by Alberta Education and their listing is not to be construed as an explicit or implicit departmental approval for use. These titles are provided as a service only to assist local jurisdictions to identify resources that contain potentially useful ideas for teachers. The responsibility of evaluating these resources before making a selection rests with the local jurisdiction according to local policy.

ACCESS NETWORK

ACCESS offers a variety of resources and services to teachers. For a nominal dubbing and tape fee, teachers may have ACCESS audio and video library tapes copied. ACCESS also offers a service called "Night Owl Dubbing". This allows educators to tape late night educational programs directly from their own televisions.

ACCESS publishes both an *Audio-Visual Catalogue* and a comprehensive schedule of programming, available on request.

For additional information, contact ACCESS Network, Media Resource Centre, 295 Midpark Way SE, Calgary, Alberta, T2X 2A8 (from outside of Calgary, telephone toll free, 1–800–352–8293; in Calgary, telephone 256–1100).

REGIONAL RESOURCE CENTRES

Films and videos are available for loan through the five centres listed below. In some instances, computer software is also loaned. Catalogues of holdings are available upon request.

Zone I

Zone I Regional Resource Centre
10020 – 101 Street
P.O. Box 6536
Peace River, Alberta
T8S 1S3
Telephone: 624–3187

Zones II and III

Central Alberta Media Services (CAMS)
2017 Brentwood Boulevard
Sherwood Park, Alberta
T8A 0X2
Telephone: 467–8896

Zone IV

Alberta Central Regional Education Services (ACRES)
County of Lacombe
Parkland Regional Library Building
56 Avenue and 53 Street, P.O. Box 3220
Lacombe, Alberta
T0C 1S0
Telephone: 782–5730

Zone V

South Central Alberta Film Centre (SCARC)
Westmount School
Wheatland Trail
Box 90
Strathmore, Alberta
T0J 3H0
Telephone: 934–5028

Zone VI

Learning Resource Centre (SALRC)
Provincial Government Administration Building
Room 120, 909 Third Avenue, North
Lethbridge, Alberta
T1J 3Z8
Telephone: 320–7807

CONCEPTS, SKILLS AND ATTITUDES

The *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide* consists of ten strands of generic skills (concepts, skills and attitudes):

1. Introductory Skills
2. Organizational Skills
3. Communication Skills
4. Reading Skills
5. Writing Skills
6. Mathematical Skills
7. Visual Skills
8. Entrepreneurship
9. Community Partnerships
10. Work Skills.

The generic skills component of the curriculum is common to each of the occupational courses. They represent the concepts, skills and attitudes students acquire that are transferable to and applicable in the home, the school, the community and the workplace.

The generic concepts, skills and attitudes presented in this manual correspond to those contained in the *IOP Occupational Component 16–26–36 Program of Studies*. They should be taught and reinforced within the context of each occupational course. The relationships among the eight occupational clusters, twenty 36-level occupational courses and the generic concepts, skills and attitudes are outlined in the following chart.

Component 10, Work Skills, consists of both generic and elective learning objectives. The elective learning objectives are specific to each occupational course. These learning objectives are outlined in the *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide* "Scope and Sequence" charts, pages 173 to 316.

MATRIX OF OCCUPATIONAL CLUSTERS, COURSES AND GENERIC SKILLS*

OCCUPATIONAL CLUSTER	OCCUPATIONAL COURSE	*CONCEPTS, SKILLS AND ATTITUDES																	
		INTRODUCTORY SKILLS					ORGANIZATIONAL SKILLS					COMMUNICATION SKILLS	READING SKILLS	WRITING SKILLS	MATHEMATICAL SKILLS	VISUAL SKILLS	ENTREPRENEURSHIP	COMMUNITY PARTNERSHIPS	WORK SKILLS
		C.A.	J.S.	H.R.	S.E.	S.	W.E.	P.O.	TIM.	TAM.	W.S.								
AGRIBUSINESS	Agricultural Mechanics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Agricultural Production	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Horticultural Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BUSINESS AND OFFICE OPERATIONS	Business Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Office Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CONSTRUCTION AND FABRICATION	Building Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Construction Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CREATIVE ARTS	Crafts and Arts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Technical Arts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NATURAL RESOURCES	Natural Resource Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PERSONAL AND PUBLIC SERVICES	Child and Health Care Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Esthetology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Fashion and Fabric Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Hair Care	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TOURISM AND HOSPITALITY	Commercial Food Prep.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Food Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Maintenance and Hosp. Serv.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TRANSPORTATION	Automotive Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Service Station Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Warehouse Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

C.A. – Career Awareness; J.S. – Job Search; H.R. – Human Relations; S.E. – Sanitation and the Environment; S. – Safety; W.E. – Work Ethics; P.O. – Planning and Organization; TIM. – Time Management; TAM. – Task Management; W.S. – Work Standards

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1. INTRODUCTORY SKILLS

The introductory skills include:

A. Career Awareness Skills

B. Job Search Skills

C. Human Relations

D. Sanitation and the Environment

E. Safety.

At the 36-level, the purpose of the introductory skills is to provide students with the opportunity to become oriented to jobs and career opportunities in at least one occupational cluster and to develop the concepts, skills and attitudes that will enable them to maintain a safe and sanitary work environment.

Teachers are encouraged to be flexible in their sequencing of the introductory skills. Rather than presenting them from a purely theoretical perspective, their presentation as an integrated part of one or more of the work skills will help to give them meaning and relevance. (See "Planning Matrix" page 8.)

Teachers of IOP students in occupational courses are encouraged to integrate their instructional planning with other teachers and community partners. Through cooperative planning they would:

- provide other teachers with materials they can use to add relevance to related instruction in the classroom; e.g., vocabulary lists, types of instructions used in the courses, trade magazines, safety and sanitation information
- require students to engage in task-related readings
- encourage student use of libraries and other resource centres in the classroom, school and community
- encourage librarians to obtain related resources and share these with students
- have a visible and accessible in-class resource centre that includes trade magazines, reference journals, work manuals and related print materials.

RESOURCES

STUDENT LEARNING RESOURCES

- Student workbook (1992) available for each 36-level occupational course.
- *Working: Today and Tomorrow*. Canadian Edition. Toronto, Ontario: Irwin Publishing, 1990.

Correlation of Learning Objectives with Student Resource

Concepts, Skills and Attitudes	*Working: Today and Tomorrow*
A. Career Awareness	Chapters 1, 2, 3, 4, Appendix
B. Job Search	Chapter 7
C. Human Relations	Chapter 6
D. Sanitation and the Environment	Chapter 11
E. Safety	Chapter 11

Specific sections of each chapter are referenced under "Suggested Activities/Community Partnerships".

TEACHING RESOURCES

- Resource 1, "Interview Guide: Reasons for Starting a Local Business/Industry"
- Resource 2, "Personal Interests and Abilities Inventory"
- Resource 3, "Personal Abilities"
- Resource 4, "Opportunities for Further Education/Training"
- Resource 5, "Key Terms"
- Resource 6, "Interview Guide: Entry-level Job Requirements"
- Resource 7, "Sample Letters of Application"
- Resource 8, "Sample Résumés"
- Resource 9, "Presentation Strategies"
- Resource 10, "Pre-employment Inquiries"
- Resource 11, "Sample Job Application Forms"
- Resource 12, "Sample Employment History Form"
- Resource 13, "Networking"
- Resource 14, "Interview Strategies"
- Resource 15, "Sample Interview Questions"
- Resource 16, "Interview Evaluation Chart"
- Resource 17, "Key Groups in the Economy"
- Resource 18, "Personal Analysis Chart"
- Resource 19, "Personal Growth Chart"
- Resource 20, "Personal and Public Hygiene Practices"
- Resource 21, "Regional Offices: Alberta Occupational Health and Safety"
- Resource 22, "Identifying Public Hygiene Practices"

- Resource 23, "Safety Standards and Regulations"
- Resource 24, "Safety Procedures Record Chart"
- Alberta Career Development and Employment publications
  e.g., – *Occupational Profiles*
  – *The Easy-to-Read Career Planning Guide*
- Alberta Community and Occupational Health officials and publications
- Alberta Labour officials and publications
- Alberta Occupational Health and Safety officials and publications
- Business and trade journals
- *Canadian Classification and Dictionary of Occupations (CCDO),* Employment and Immigration Canada, Occupational and Career Analysis and Development Branch
- Canada Employment Centres, Employment and Immigration Canada
- Career Selector Series, Ontario Ministry of Labour, Women's Bureau
- Telephone and business directories
- Workers' Compensation Board officials and publications
- Community partners.

A. CAREER AWARENESS SKILLS

The purpose of this introductory skill is to enable students to expand the context, identified in previous grades, for the concepts, skills and attitudes that will be developed throughout each 36-level occupational course and to prepare to enter the world of work and/or continue their education/training.

Expanding the occupational context for students increases the meaningfulness of subsequent learnings and prepares them to enter the world of work.

The career awareness skills developed at the 36-level include:

1. Identifies related businesses and industries.
2. Identifies personal abilities.
3. Identifies available jobs/careers in interest areas.
4. Identifies opportunities for further education/training.

The introductory section of each 36-level student workbook contains information and activities related to career awareness skills.

1. LOCAL BUSINESSES AND INDUSTRIES

The types and numbers of businesses and industries in a community may change over time. Various social and economic factors may affect the types and numbers of local operations.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow*, Chapter 1 (pages 2–16), and answer the questions at the end of the chapter.
2. a. Using local telephone and business directories, newspapers, other media and observational skills, identify local businesses and industries that relate to the occupational course.

   b. List three local businesses and three local industries that relate to the course.

   c. Interview the owner/operator/manager of a new local business/industry to determine why they started the operation in the community. (See Resource 1, "Interview Guide: Reasons for Starting a Local Business/Industry".)
3. a. Brainstorm, to review the distinctive characteristics of businesses and industries discussed in Level 26. Record the characteristics. (See Suggested Teaching Strategies, "Brainstorming".)

   b. Which of the following factors may encourage the development of a new business or industry? Why?

      - geographic location
      - trends: markets, seasons, long-term prospects
      - labour intensity
      - entrepreneurial opportunities
      - how money is earned: wage, salary, commission
      - other factors?

2. PERSONAL ABILITIES

Personal abilities change over time. Our abilities increase as we gain knowledge, skills and new awareness of career and life goals, and, because of these increased abilities, new goals can be established.

The process of identifying personal abilities and redefining career and life goals contributes to personal growth and lifelong learning.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow*:
   - Chapter 2, Complete the activities at the end of the chapter (pages 17–32).
2. Use Resource 2, "Personal Interests and Abilities Inventory" to analyze your present interests and abilities. Review the inventory that you completed in Level 26.
   a. Have your interests changed? In what ways?
   b. Have your abilities changed? Describe your new abilities.
3. Using Resource 3, "Personal Abilities", describe yourself; i.e., your strengths, limitations, career goals, personal goals, course goals.
4. Invite the school and local employment counsellors to discuss why it is important to know one's strengths and limitations.
5. Make a verbal presentation to the class on the topic, "I am ready to enter the world of work because . . .".

3. JOBS/CAREERS AND INTEREST AREAS

Each occupational cluster and course in the Integrated Occupational Program covers a broad spectrum of job and career opportunities.

It is important that students be able to identify the entry-level requirements for different jobs and be able to match these entry-level requirements with their interest areas.

Suggested Activities/Community Partnerships

1. Review *Working: Today and Tomorrow*:
   - Chapter 2 (pages 22–26)
   - Appendix (pages 191–228).
2. a. Brainstorm, to review and record the eight occupational clusters that represent major fields of employment in Alberta.
   b. To which occupational cluster does this course belong?

c. Use a variety of school and community resources (e.g., local newspapers, bulletin boards, employment and immigration pamphlets) to identify the variety of jobs and careers that relate to:

  - the occupational cluster
  - the occupational course.

3. Discuss:

   a. What job and/or career opportunities in other occupational clusters are related to the course?

   b. Which generic and work skills (i.e., concepts, skills and attitudes) learned/acquired in this series of 16–26–36 courses may be transferable to other occupational clusters?

   c. What are the advantages/disadvantages of developing transferable concepts and skills, and developing transferable attitudes?

4. a. Which occupations are of most interest to you? Why?

   b. Draw a flow chart or semantic web to show:

      - jobs of interest that relate to the occupational course/cluster
      - career ladders and interest that relate to the occupational course/cluster.

   (See Suggested Teaching Strategies, "Flow Charting: A Process Analysis Strategy".)

5. a. Job and career trends can change rapidly. Invite representatives from local businesses and industries to discuss job and career trends.

   b. Visit local businesses and industries and, through interviews, discussions, job shadowing, or mentorship community partnerships, identify and record the present and long-term job and career prospects related to the occupational course/cluster.

6. What are the tasks you like to do? What tasks do you do well? Use Resource 2, "Personal Interests and Abilities Inventory"; Resource 3, "Personal Abilities"; or pages 7–17 of *The Easy-to-Read Career Planning Guide* to perform a self-assessment.

7. Review the self-assessment you performed for your 26-level occupational courses.

   a. Have the tasks you liked to do in 26-level courses changed now that you're in 36-level courses?

      - What tasks have changed?
      - Why do you think they've changed?

   b. Have the tasks you were good at in 26-level courses changed now that you're in 36-level courses?

      - What tasks have changed?
      - Why do you think they've changed?

4. FURTHER EDUCATION/TRAINING

Successful completion of the Integrated Occupational Program will enable students to qualify for the Certificate of Achievement. This certificate will inform employers and others that the student has developed knowledge and skills and acquired attitudes that qualify him or her for employment at or above the entry level. Students should be encouraged to recognize that further education/ training is an important component of personal growth and career development.

The development of a positive attitude toward further education/training is important for career goals and lifelong learning.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow:*
   - Chapter 1, "Preparing for Change" (pages 12–14).
2. Using the local newspaper(s), telephone and business directories, and other resources, use Resource 4, "Opportunities for Further Education/Training" to:
   a. identify and list local opportunities for further education/training; e.g., colleges, private vocational schools, other related programs
   b. describe the programs or related course(s) available from each local institution/agency and the cost of each course.
3. Investigate and discuss the topic, "correspondence courses". Focus on the following questions:
   a. What are correspondence courses?
   b. Are there correspondence courses that relate to my career interests? What courses are offered? Who offers them? How much do they cost?
   c. What are the advantages/disadvantages of correspondence courses?
4. Invite graduates of the school to discuss their use and need for further education and training since leaving school.
5. Invite the counsellors from local colleges and private vocational schools to suggest why their institutions offer the "best" further education/training.
6. Discuss:
   a. Why is further education/training a necessity in the workplace?
   b. How does business/industry ensure that workers can properly handle new technology?
   c. What happens to workers who do not continue to upgrade their education/training?
7. Apprenticeship may be an option for some students.
   a. Invite a representative from Alberta Career Development and Employment to discuss opportunities for apprenticeship in the province.

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b. Investigate opportunities for apprenticeship in related trades and the entry-level requirements for apprentices.

c. Describe "a proficiency trade".

d. How long is the period of apprenticeship in related trades?

e. How many periods of technical training must be taken in addition to on-the-job training in related trades in order to become a journeyman?

(See Unit 10, "Work Skills" for additional information and resources related to apprenticeship in Alberta.)

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B. JOB SEARCH SKILLS

The ability of students to recognize that job search is a process and not an event is an important skill for all graduates.

One of the primary goals of the Integrated Occupational Program is to develop student ability to attain and retain employment. The concept of job search and the development of related skills is an integral part of each occupational course.

The job search skills developed at the 36-level include:

1. Reviews business-/industry-related terms.
2. Writes letters of application.
3. Prepares a résumé.
4. Completes application forms.
5. Identifies and contacts references.

1. BUSINESS-/INDUSTRY-RELATED TERMS

Each job, trade, business, industry has its own language. Identification and practical use of the appropriate language of business and industry can assist students to gain:

- easier admittance to the work force
- acceptance in the workplace
- a sense of identity and belonging to a group.

The incremental achievement of each of these "gains" during the full sequence of each occupational course will assist students in making a smooth transition from the school to the workplace.

Students should be able to define and understand the meaning of the following terms as they apply to related trades, businesses and industries:

- unskilled worker
- semi-skilled worker
- apprentice
- entry-level skills.

Job specific terms should also be defined and understood; e.g.,

- apprentice
- esthetologist
- horticultural assistant
- leasehand
- derrickhand.

Familiarity with the language of business and industry will instill confidence and poise in students as they prepare for employment or further education/training.

Suggested Activities/Community Partnerships

1. a. Review the related terminologies and definitions introduced in the 16- and 26-level courses and the glossary contained in many student workbooks.

   b. Read the glossary in *Working: Today and Tomorrow* (pages 228–240), to review the meaning of unfamiliar terms.

   c. Use other resources to define/describe key terms.

   d. Participate in job shadowing and/or other field experiences and listen carefully for job-related terms that are new to you. List them and define them by:

      - asking people in the workplace what each term means
      - using a dictionary
      - reading trade/business/industry journals.

   e. Keep a log to record the new terms identified and defined each month. (See Resource 5, "Key Terms".)

2. Invite community partners to participate in class discussions:

   a. Alberta Career Development and Employment

   Topics: The relationship between the course and Alberta's system of apprenticeship.

   How students who attain a Certificate of Achievement can articulate with the apprenticeship system.

   b. Employer/manager of a local industry or business

   Topics: At what levels does the industry/business take on employees?

   What does/should the Certificate of Achievement mean to an employer/manager?

3. Select two different jobs that relate to the course and interview or job shadow a worker who performs each job in the community. Use Resource 6, "Interview Guide: Entry-level Job Requirements" to record each worker's responses and your observations. Note the key terms in your log.

4. a. Read the classified advertisements in the local newspaper(s) and related business/industry journals.

   b. Copy (in writing or with a photocopier) advertisements that identify the entry-level requirements of two jobs.

   c. Share the copies with other students in the class and use the following chart to show the entry-level requirements of each job identified.

Entry-level Requirements in Jobs			
Job	Entry-level Requirements		
	Concepts	Skills	Attitudes

5. a. Invite community partners to lead a class discussion on the job search process and why it is important to follow each step of the process. Community partners may include:

    - school guidance counsellor
    - personnel manager from a local industry/business
    - Alberta Career Development and Employment career counsellor.

   b. Have students use a listening guide to stay attuned to the speaker's message. (See Suggested Teaching Strategies, "A Guide to Effective Listening".)

6. Encourage students to share stories about successful and unsuccessful job searches.

   a. Why were the successful job searches successful?

   b. Why were the unsuccessful job searches unsuccessful?

2. LETTERS OF APPLICATION

A letter of application may be used to make the first contact with an employer. The letter of application may be sent alone or together with a résumé. The letter is used to:

- create a favourable impression of the applicant
- introduce the applicant (the résumé provides detailed information about the applicant)
- obtain an interview with the employer.

Letters of application should be neat, well-written and include the following information:

- present situation; e.g., student completing a program, present part-time employment
- area(s) of interest
- education, training and experience
- knowledge of the business/industry
- job desired and career plan
- when available for an interview
- if a résumé is to be attached to the letter, state that the résumé is attached.

Letters of application should be tailored to suit:

- the employer
- your knowledge of and level of experience in the position being applied for.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow*:
    - Chapter 7, "Writing a Letter of Application" (pages 105–106).

2. a. Write two letters of application. One letter should reflect the fact that you have experience in similar part-time employment; the other letter should indicate that, while you have no previous experience, you are a good worker and eager to learn. (See Resource 7, "Sample Letters of Application".)

    b. Discuss:
    - What are the advantages/disadvantages of including a résumé with a letter of application?
    - Is it better to send a handwritten or keyboarded letter of application? Explain your reasons.

3. Invite local employers to describe what they look for when they receive letters of application:
    - in response to an advertisement
    - as letters of inquiry about possible employment opportunities.

3. RÉSUMÉS

Everyone who is looking for employment needs a résumé. A résumé is a written statement that shows your abilities, education, work experience, and other information you want a prospective employer to know about you.

A résumé shows an employer what you can do. It should also show what you can do for the employer.

Résumés, like letters of application, may be tailored to suit different jobs and different employers.

Suggested Activities/Community Partnerships

1. a. Read *Working: Today and Tomorrow*:
    - Chapter 7, "How to Write a Résumé" (pages 100–103).

    b. Read *The Easy-to-Read Career Planning Guide* (pages 36–38).

2. a. Practise writing a résumé using different formats. (See Resource 8, "Sample Résumés".)

    b. What are the advantages/disadvantages of using:
    - the chronological résumé?
    - the biographical résumé?

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3. Invite local employers to describe what they look for in a résumé:
   - content
   - format
   - neatness
   - handwritten/keyboarded.

4. a. In some communities, entrepreneurs operate businesses that develop résumés for a fee. Invite one of these entrepreneurs to discuss how they tailor a résumé to suit the person, the position being applied for, etc.

   b. Use Resource 9, "Presentation Strategies" to evaluate a guest's presentation.

For additional suggested activities/community partnerships and resources, see Unit 5, "Writing Skills" and the following resources:

- **Resource 43, "Sample Letter of Application"**
- **Resource 44, "Sample Letter of Inquiry"**
- **Resource 45, "Parts of a Résumé"**
- **Resource 46, "Sample Résumé"**
- **Resource 47, "Guidelines for Completing a Job Application Form"**
- **Resource 48, "Sample of a Completed Job Application Form"**
- **Resource 49, "Sample Covering Letter"**

4. JOB APPLICATION FORMS

Most large companies require prospective employees to fill out an application form. These forms provide employers with a record of each prospective employee.

A job application form is a long-lasting record of who you are, what you can do, and why you want a job with a particular company.

A well-presented application form should be:

- accurate and complete
- neatly handwritten or typed
- free from errors, erasures and stains
- neatly folded and placed in an envelope before being given/sent to the employer.

Suggested Activities/Community Partnerships

1. a. Read *The Easy-to-Read Career Planning Guide* (pages 29–30).

   b. Read *Working: Today and Tomorrow*:
      - Chapter 7, "Completing an Application Form" (pages 105–106).

2. The Alberta Human Rights Commission provides examples of the types of pre-employment questions, both verbal or written, that employers are permitted to pose to job applicants. Read Resource 10, "Pre-employment Inquiries" and answer the following questions:

   a. Why are some questions categorized as "permitted inquiries" while others are categorized "not recommended"?

   b. Discuss with classmates:
      What should you do if a "not recommended" inquiry is made on a job application form? During an interview?

3. Use Resource 11, "Sample Job Application Forms", and Resource 12, "Sample Employment History Form" to gain practice in filling out these types of forms.

4. a. Contact (by telephone, letter or in person) government employment offices (federal, provincial, municipal) and other organizations/employers in the community to obtain copies of different application forms.

   b. Are there differences between the forms you obtained? What are these differences?

   c. Practise completing the application forms.

5. Some application forms ask applicants to indicate their hobbies and interests. Discuss: What is the employer attempting to find out about a prospective employee by asking these questions?

6. Some job application forms ask applicants to describe why they want to work for the company.

   a. Write a paragraph describing why you would like to work for a company known to you in the community. (See Suggested Teaching Strategies, "Descriptive Writing: An Evaluation Guide".)

   b. Share your paragraph with classmates and discuss the appropriateness of each other's work.

5. REFERENCES
6. NETWORKING

A reference or a referee is a person who may be called upon to describe, orally or in writing, your character and abilities.

References are usually people you know and who know you well. They may be categorized into two groups:

- Personal references. These are people who know you well and who are willing to provide a statement about your character; e.g., honesty, integrity, work ethic, human relations skills. Personal references may include the family doctor, church minister, teacher, coach.

- Professional references. These are people who know about your abilities as a worker; the concepts, skills and attitudes that you bring to bear on a task. Professional references may include teachers, past employers, volunteer coordinators.

A potential source of references are those people whom you have encouraged to be a part of your network.

Suggested Activities/Community Partnerships

1. Review the concept of networking.

   Networking is the process of establishing multiple channels of communication (Resource 13, "Networking" outlines potential people who may be involved in a network).

   Networking is a method that may be used to:

   - let everyone know that you are looking for a job
   - have others look for a job on your behalf.

2. a. Read *The Easy-to-Read Career Planning Guide* (pages 31–34). (See Suggested Teaching Strategies, "RAP: A Comprehension Strategy".)

   b. Write down the names of six people you know, their jobs, and the reason you think they would be effective references.

Name of Reference	Job	Reason for Selection

3. Brainstorm:

   What other strategies can be used to establish a network of people who know you, know that you are looking for a job, and who may be willing to act as a reference for you?

7. JOB INTERVIEWS

A job interview provides the opportunity to talk face-to-face with an employer. The call from an employer to come for an interview may have resulted from the quality of your:

- letter of application
- letter of inquiry
- résumé
- networking
- any combination of these factors.

The goal of an interview is to receive an offer of employment. The key to success is to be prepared for the interview.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow*:
    - Chapter 7, "Before, During and After the Interview" (pages 107–110).
2. Read *The Easy-to-Read Career Planning Guide* (pages 39–41).
3. a. Working in small groups (two or three students), practise being interviewed and conducting an interview.

    b. Discuss:

    - Is it normal to feel nervous before and during an interview? How can being nervous be dealt with?
    - If the interview takes place in an office, should the interviewee take a seat without being directed to do so?
    - How can an interviewee project a positive attitude?

    c. Use Resource 14, "Interview Strategies" and Resource 15, "Sample Interview Questions" during practice interviews. Also, see Communication Skills, Resources 38, 39 and 40.

    d. Use a copy of Resource 16, "Interview Evaluation Chart" to evaluate your classmates' interviewing abilities.
4. Invite community partners to conduct practice interviews and to provide tips on effective interview practices. (See also Resource 38, "Stages of the Interview".)
5. Using the complete job search process, apply for a job. Keep notes on what you do at each step of the process. Report back to the class after you have participated in a job interview and received feedback from the employer.

8. UNIONS AND ASSOCIATIONS

In the marketplace (e.g., Alberta) the roles of different groups are important to the success of the economy in general and specific businesses/industries in particular. Unions and other labour associations are groups involved in the process of helping to make Alberta's economy successful. Groups involved in this process include:

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- government
- business/industry/entrepreneurs
- consumers
- labour unions and associations.

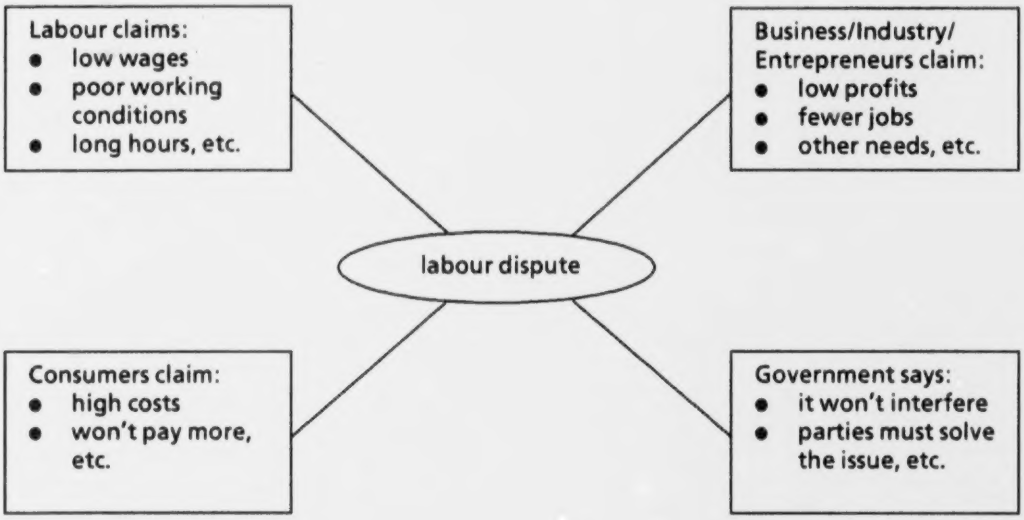
At times, disputes arise between the different groups: e.g., a strike, lockout, consumer boycott.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow*:
   - Chapter 8, "Labour Unions" (pages 119–122).
2. Discuss:
   a. What is the role of each group in helping to make Alberta's economy successful? (See Resource 17, "Key Groups in the Economy".)

   b. What position may be taken by each key partner during a dispute; e.g., a labour dispute?

   c. Draw a web to show these positions; e.g.,


Labour claims:
• low wages
• poor working conditions
• long hours, etc.
Business/Industry/ Entrepreneurs claim:
• low profits
• fewer jobs
• other needs, etc.
labour dispute
Consumers claim:
• high costs
• won't pay more, etc.
Government says:
• it won't interfere
• parties must solve the issue, etc.

3. Invite a representative from each of the four groups to discuss the role that each plays in the economy and how each group influences related businesses/industries.
4. Investigate if you will have to join a labour union or association as a term of employment with a company. Which union/association is related to the occupation of your choice?
5. Discuss:
   a. What effect does membership in a union or association have in the workplace?

   b. What are the advantages/disadvantages of working in a unionized workplace?

C. HUMAN RELATIONS

In this unit, the concept of building positive relationships in the workplace and elsewhere is further developed. **The ability to develop and maintain positive relationships with peers and others is an integral part of each senior high school course.**

The skills related to human relations developed at the 36-level include:

1. Identifies positive traits in self and others.
2. Demonstrates good interpersonal relationships.
3. Demonstrates personal growth in human relationships.
4. Demonstrates ability to deal with conflict.
5. Demonstrates strategies for building self-esteem.
6. Identifies personnel in local businesses/industries.
7. Establishes contacts with local businesses/industries.
8. Demonstrates appropriate workplace behaviour.
9. Demonstrates appropriate dress for the workplace.

1. POSITIVE TRAITS
2. INTERPERSONAL RELATIONSHIPS
3. PERSONAL GROWTH
4. CONFLICT RESOLUTION
5. SELF-ESTEEM

Human behaviour is often described in terms of:

- **Human relations** – A concept that relates to the ways people get along with each other.
- **Personality** – A term used to describe the personal qualities that makes each person's behaviour pattern unique.
- **Traits** – The qualities of mind, character, etc., which, together, affect behaviour and determine personality.

Effective workers within a trade or occupational cluster tend to demonstrate similar traits. These traits may include some or all of the following:

- artistic and creative ability
- communication skills
- craftsmanship
- human relations skills
- love of nature and the outdoors
- mechanical skills
- organizational skills
- physical fitness
- pleasing personality
- positive attitude toward work
- technical skills.

The ability to identify one's own positive traits and the positive traits in others helps to build:

- self-esteem in self and others
- good human relations.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow*:
   - Chapter 8, "Working with Others" (pages 114–116)
   - Chapter 10, "Getting Along with Others" (pages 149–150).
2. Our personal abilities (e.g., human relations skills, personality, traits) develop over time as we gain new knowledge, skills and experience.
   a. Use a copy of Resource 18, "Personal Analysis Chart" to list and describe your personal abilities.
   b. Compare this list to the one you prepared in previous courses. In what ways have your personal abilities developed?
   c. Use a copy of Resource 18, "Personal Analysis Chart" to do an analysis of a classmate. Share your analysis with the classmate.
3. Invite community partners to participate in a panel discussion dealing with the importance of self-esteem and human relations in the workplace. Participants may include a(n):
   - employer
   - employee
   - labour union representative
   - personnel manager
   - volunteer agency representative.
4. Using Resource 19, "Personal Growth Chart", identify your strong and weak traits and suggest activities that could lead to personal growth.

6. BUSINESS/INDUSTRY PERSONNEL
7. ESTABLISHING CONTACTS

In many ways, people who work together often resemble a family. In both family and workplace relationships, one may find:

- authority figures
- competition
- helping
- caring
- teasing
- comforting.

In both sets of relationships, knowing the name and position of each person helps to identify individual's roles and responsibilities.

As noted in Unit B, "Job Search Skills", if you gain the reputation for being a conscientious worker by people who make decisions regarding hiring new employees, this helps to increase your network of contacts and potential references.

Suggested Activities/Community Partnerships

Refer to the following for related student activities/community partnerships:

- Section B, Job Search Skills, "5. References" and "6. Networking"
- *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide*, Section B, Job Search Skills, "Suggested Strategies/Activities".

8. WORKPLACE BEHAVIOUR

The behaviour of people in the workplace is related to their human relations skills, personality, traits and other factors.

Desirable workplace behaviours include the ability to:

- communicate effectively
- relate well to peers and others
- follow rules, regulations and instructions
- accept constructive criticism
- correct one's own errors
- recognize the need for continuing education and training.

Suggested Activities/Community Partnerships

1. One of the characteristics of effective relationships is that people usually help each other. Brainstorm, to identify and record:
   - ways that people may help/support each other in an occupation
   - how much co-workers in an occupation depend on each other to accomplish tasks.
2. Working in pairs, role play a workplace situation in which one worker is critical of another. (See Suggested Teaching Strategies, "SPOT: A Social Problem-solving Strategy".)
   a. If you were the worker being criticized, how would you handle the situation?

   b. If you were the one who was offering criticism, how do you think the person you criticized feels? How do you feel when you criticize others?

   c. What effect may overly critical behaviour have in the workplace?

   d. If you were an employer/manager, how would you handle this type of situation?
3. a. Working in small groups, discuss how each person feels when, having made a mistake, they're called "stupid"; they're told "don't worry", and shown how to perform the task correctly.

   b. What may be the short- and long-term effects if someone is frequently told "you're stupid" or "you're a conscientious worker"?

   c. What are some positive ways to react to your own or a co-worker's mistake?

9. WORKPLACE DRESS

In some occupations, appropriate dress is a requirement for employment. Dressing appropriately for the job may be related to safety, sanitation, personal and corporate images and other factors.

1. a. Visit at least two related workplaces and identify and describe the dress considered appropriate for the occupation.

   b. Is this type of dress a requirement on the job? Suggest reasons if it is a requirement.
2. Some occupations require all workers to wear clothes on the job that would not normally be worn elsewhere. Is there one or more occupation related to the course that makes this a job requirement? Name the occupation(s) and describe the required dress.

D. SANITATION AND THE ENVIRONMENT

The concept of "sanitation and the environment", as used in occupational courses, relates to the personal–public/individual–group responsibilities for maintaining clean and healthy conditions in the workplace and in the environment in general.

The ability to maintain a sanitary work area and environment is an essential life and work skill.

The skills related to sanitation and the environment developed at the 36-level include:

1. Practises personal hygiene.
2. Demonstrates ability to perform public hygiene practices.
3. Demonstrates sanitary work behaviour.
4. Recognizes how infections and diseases are controlled in local businesses/industries.
5. Describes occupational health and safety regulations.

1. PERSONAL HYGIENE
2. PUBLIC HYGIENE

Hygiene refers to keeping things clean and maintaining one's health. Sanitation refers to the practices used to maintain hygienic conditions.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow*:
    - Chapter 11, "Preventing Accidents and Illness" (pages 172–175).
2. Use Resource 20, "Personal and Public Hygiene Practices" to review these concepts and skills.
3. Sanitary standards and practices may differ between occupations, even occupations within one occupational cluster. For example, in the agribusiness occupational cluster, sanitary standards and practices adopted in a flower shop may be very different from those adopted on a farm.
    a. Visit local industry/business operations and observe and keep a record of the sanitary practices in each operation.

    b. Are there differences in the types and cleanliness of clothes worn by workers doing similar jobs but in different operations? Why? What effect might this difference have on the workers? On the public?

    Discuss:

    - What effect does a worker's personal hygiene have on human relations in the workplace?
    - What effect does a worker's personal hygiene have on customer relations in the workplace?

4. The Alberta government is responsible for occupational health and safety in the province. To familiarize yourself with occupation-related regulations:

   a. Obtain and read a copy or summary of the occupational health and safety regulations that relate to employers and to employees. Copies of regulations may be obtained from local sources. (See Resource 21, "Inspection Branch Offices: Alberta Occupational Health and Safety.)

   b. Invite community partners from the local agencies to discuss occupational health and safety standards and practices with the class; e.g.,

      - local hospital or public health unit
      - provincial Occupational Health and Safety Board
      - Workers' Compensation Board.

5. Visit three course-related workplaces and observe the public hygiene practices in place. Use Resource 22, "Identifying Public Hygiene Practices" and record the practices you observe. Compare these with the records made by classmates, and discuss:

   - What were the major differences in the public hygiene practices in the three workplaces observed?
   - Were public hygiene practices more carefully performed in some work sites than in the others? Where? What effect might this have on the operation?

6. All occupations require workers to observe and to practise general public hygiene. However, some occupations are governed by laws, rules and regulations that require workers to observe and practise a strict and a rigid set of public hygiene standards and practices. Some of these occupations include:

   - agricultural production
   - child and health care
   - commercial food preparation
   - esthetology
   - food services
   - hair care
   - maintenance and hospitality services.

   a. What special public hygiene standards and practices are related to this occupational course?

   b. What are some of the reasons for these standards and practices?

   c. What could happen if these standards and practices were not followed?

   d. Have public and personal hygiene standards related to this occupational cluster changed in recent years? In what way(s)?

E. SAFETY

The idea that "safety is everybody's business" is reinforced in each occupational course.

The concept of safety and its related skills is an essential learning across all occupational courses and is dealt with both as a generic concept and a specific work skill within each occupational course.

Safety is not just an entry-level work skill. Work skills are either safe or they are unsafe, and the consequences of unsafe practices can be disastrous both to self and to others.

Students should receive instruction in current safe equipment, tool and supply use, and general safety practices both in the school lab and in the workplace. These instructions should be reinforced through theory and practice throughout the course. (See Suggested Teaching Strategies, "CARE: A Safety Strategy".)

The safety skills developed at the 36-level include:

1. Demonstrates entry-level safety ability.
2. Uses equipment, tools and supplies according to manufacturers' instructions.

The following resources may be used to provide a specific focus on different aspects of safety in the workplace.

- Alberta Labour publications; e.g.,
  - *Heating Boiler Safety* (Pamphlet, 1985)
  - *Reporting Accidents* (Form, 1985)
  - *Help Yourself to Electrical Safety in Industry* (Brochure, 1981)
  - *Help Yourself to Electrical Safety on the Farm* (Brochure, 1985)
  - *Baby-sitter! You are Responsible* (Card)
  - *Emergency Fire Information* (Booklet, 1985)
  - *Know Your Fire Extinguishers* (Cards).

- Alberta Occupational Health and Safety publications and productions; e.g.,
  - *An Employer's Guide: The Occupational Health and Safety Act* (Booklet, 1990)
  - *A Worker's Guide: The Occupational Health and Safety Act* (Booklet, 1990)
  - *Occupational Health and Safety Magazine*
  - *First Aid Regulations* (Brochure, 1989)
  - *Personal Protective Equipment* (Brochure, 1990)
  - *Noise Regulation* (Brochure, 1989).

- Armour, Margaret-Ann, et al. *Potentially Carcinogenic Chemicals: Information and Disposal Guide.* University of Alberta and Cross Cancer Institute. Distributed by Terochem Scientific, Box 8188, Station F, Edmonton, Alberta, T6H 2P1.

- Armour, Margaret-Ann, et al. *Hazardous Chemicals: Information and Disposal Guide.* University of Alberta. Distributed by Terochem Scientific, Box 8188, Station F, Edmonton, Alberta, T6H 2P1.

The safety information contained in the 36-level student workbook available for each course is provided as a guide only. Teachers must ensure that current safety practices are known to and followed by students in the school lab and in the workplace.

1. ENTRY-LEVEL SAFETY ABILITIES
2. SAFE USE OF EQUIPMENT, TOOLS AND SUPPLIES

The concept and practice of safety has been reinforced throughout previous courses in the Integrated Occupational Program. It should be further reinforced in 36-level courses.

Safety is as much a state of mind as it is a set of safe practices. Students should be encouraged to think of safety as an integral part of the normal skill development process, not as a set of extra tasks that they have to perform.

Safety in the school lab and in the workplace is everyone's business. An unsafe act by one person can affect the health and welfare of many others.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow*, Chapter 11, "Health and Safety on the Job" and complete the activities at the end of the chapter (pages 162–178).

2. On an ongoing basis, review and reinforce the safety procedures appropriate to the:

   - lab/workplace; e.g., emergency procedures, fire exits
   - use of each tool and piece of equipment
   - use, mixing and storing of supply items
   - handling of fire extinguishers.

3. a. Review Resource 23, "Safety Standards and Regulations", and

      - highlight or underline those that relate to the course
      - add other safety procedures that also relate to the course.

   b. Read and follow the instructions given in Resource 24, "Safety Procedures Record Chart".

4. Invite community partners to discuss and demonstrate safety procedures appropriate to related occupations. Guests may include a representative from:

   - Alberta Occupational Health and Safety
   - Alberta Labour
   - Fire Department
   - Business/Industry
   - Workers' Compensation Board.

5. a. Review the purpose, use and importance of the Workplace Hazardous Materials Information System (WHMIS).

   b. Who is responsible for WHMIS?

   c. What does WHMIS indicate must be done with products classified as "controlled products"?

   d. What are controlled products? Provide examples.

   e. How does WHMIS affect related workplaces?

   f. Who is responsible for training employees and employers in how to handle controlled products? How to follow WHMIS regulations?

See Unit 7, Visual Skills for additional resources related to WHMIS.

INTERVIEW GUIDE

REASONS FOR STARTING A LOCAL BUSINESS/INDUSTRY

Course: ______________________ Student's Name: ______________________________

Name of Business: ____

Name of Person Interviewed: ________________ Date: ________ Occupation: ___________

1. How long has this business/industry been in existence?

   ____

2. How long has the operation been in the community?

   ____

3. What are some of the reasons why you started the operation:

   - in this community? ____

     ____

     ____

   - in this location? ____

     ____

     ____

4. What major factors would you look for before deciding to start a business/industry in a community?

   ____

   ____

   ____

5. What abilities would I need in order to start and successfully operate a small business in a similar field?

   ____

   ____

   ____

   ____

PERSONAL INTERESTS AND ABILITIES INVENTORY

This inventory is meant to help you identify the things you like to do and the things you do well.

1. THINGS I LIKE TO DO:

You know what you like to do and what you don't like to do. Most people like to do things they do well. Read through this list and make a check under Yes if it is something you like doing. If it is something you don't like doing make your check under No. If it's something you like doing now and then, make your check under Sometimes.

EXAMPLE:	Yes	Sometimes	No
I like washing dishes	☐	☑	☐
I like fixing cars	☑	☐	☐
I like drawing	☐	☐	☑

	Yes	Sometimes	No
I like helping people	☐	☐	☐
I like serving people	☐	☐	☐
I like fixing things	☐	☐	☐
I like selling things	☐	☐	☐
I like working with machines	☐	☐	☐
I like teaching children	☐	☐	☐
I like adding numbers	☐	☐	☐
I like typing	☐	☐	☐
I like swimming	☐	☐	☐
I like cleaning homes	☐	☐	☐
I like applying makeup	☐	☐	☐
I like cooking foods	☐	☐	☐
I like driving	☐	☐	☐
I like exercising	☐	☐	☐
I like sewing	☐	☐	☐
I like working with tools	☐	☐	☐
I like working with animals	☐	☐	☐
I like handling money	☐	☐	☐

	Yes	Sometimes	No
I like styling hair	☐	☐	☐
I like growing plants	☐	☐	☐
I like listening to music	☐	☐	☐
I like playing a musical instrument	☐	☐	☐
I like baking	☐	☐	☐
I like arranging flowers	☐	☐	☐
I like delivering parcels and letters	☐	☐	☐
I like playing sports	☐	☐	☐
I like travelling	☐	☐	☐
I like gardening	☐	☐	☐
I like painting houses	☐	☐	☐
I like singing	☐	☐	☐
I like dancing	☐	☐	☐
I like taking photographs	☐	☐	☐
I like washing windows	☐	☐	☐
I like walking	☐	☐	☐
I like talking on the telephone	☐	☐	☐
I like teaching adults	☐	☐	☐
I like coaching sports	☐	☐	☐
I like doing crafts	☐	☐	☐
I like cleaning carpets	☐	☐	☐
I like moving furniture	☐	☐	☐
I like making people laugh	☐	☐	☐

Other things I like to do:

2. THINGS I DO WELL:

Now you have an idea of what things you like to do. Of course, there are some things that you like to do more than others. You probably can do some things better than other things. Maybe you can fix a car, but you can't decorate a birthday cake. Maybe you can talk with all kinds of people, but you can't drive a car or truck.

1 Knowing what you **like** to do is the first step in planning your career.

2 Knowing what you **can do well** is your next step.

Read this list of skills. If you can do the skill well, make your check under the words Can Do Well. If you can do it, but you're not that good at doing so, make your check under Can Do. If you can't do it at all, make your check under Can't Do.

Don't sell yourself short. There will be many things you can do well.

EXAMPLE:	**Can Do Well**	**Can Do**	**Can't Do**
I can speak two languages	☑	☐	☐
I can train dogs	☐	☐	☑
I can sew dresses	☐	☑	☐

	Can Do Well	**Can Do**	**Can't Do**
I can lift heavy objects	☐	☐	☐
I can drive a truck	☐	☐	☐
I can sell things	☐	☐	☐
I can convince people	☐	☐	☐
I can organize people	☐	☐	☐
I can plan a party	☐	☐	☐
I can cut hair	☐	☐	☐
I can build houses	☐	☐	☐
I can tidy tables	☐	☐	☐
I can cook	☐	☐	☐
I can bake	☐	☐	☐
I can build a brick wall	☐	☐	☐
I can build furniture	☐	☐	☐
I can style hair	☐	☐	☐
I can fix car engines	☐	☐	☐
I can fix small appliances	☐	☐	☐
I can fix plumbing	☐	☐	☐
I can care for small children	☐	☐	☐
I can type	☐	☐	☐
I can help people who are upset	☐	☐	☐

	Can Do Well	Can Do	Can't Do
I can file letters	☐	☐	☐
I can teach children	☐	☐	☐
I can use a computer	☐	☐	☐
I can speak to a group of people	☐	☐	☐
I can paint a picture	☐	☐	☐
I can play a sport	☐	☐	☐
I can write a story	☐	☐	☐
I can tell a story	☐	☐	☐
I can rearrange a room to look better	☐	☐	☐
I can learn new things	☐	☐	☐
I can pay bills	☐	☐	☐
I can buy groceries	☐	☐	☐
I can entertain people	☐	☐	☐
I can add numbers	☐	☐	☐
I can do tax forms	☐	☐	☐
I can make a budget	☐	☐	☐

Are there other things you can do that aren't listed here? Add them here:

____

____

____

____

____

____

____

____

____

____

	Yes	No
Do you like to fix or make things?	☐	☐
Do you like working with your hands?	☐	☐
Do you like working with plants or animals?	☐	☐
Do you like to see what you have accomplished at the end of the day?	☐	☐
Do you like to work with things rather than people?	☐	☐
Do you like to operate machinery?	☐	☐

People who say "yes" to most of those questions, work in places like those following:

- Loading docks
- Farms
- Fish farms
- Factories
- Taxi companies
- Carpentry shops
- Small-appliance repair shops
- Airports
- Sewing factories
- Pet-grooming businesses
- Bottle depots
- Gas stations
- Construction sites
- Landscape companies
- Oil rigs
- Fishing boats
- Fur farms
- Post offices
- Hotels
- Hospitals
- Restaurants
- Parking lots
- Dry cleaning plants
- Cleaning companies
- Veterinarian offices
- Manufacturing companies
- Transport companies

These are just some of the jobs that people working at those places can do:

- Car or truck mechanic
- Small-appliance repair person
- Construction labourer
- Butcher
- Assembly line worker
- Kitchen helper
- Plumber
- Carpenter
- Loader
- Cutter
- Taxi driver
- Farm worker
- Heavy equipment operator
- Janitor
- Baker
- Gas station attendant
- Locksmith
- Letter carrier
- Dressmaker
- Sailor
- Seamstress
- Freight handler
- Sewing machine operator
- Truck driver
- Maid
- Ranch hand
- Upholsterer
- Cook
- Optician
- Shipping/receiving clerk
- Tree surgeon
- Letter sorter
- Bus driver
- Miner
- Meter reader

	Yes	No
Do you like to type?	☐	☐
Can you use business machines such as copiers or computers?	☐	☐
Are you good at working with numbers?	☐	☐
Would you like to work in an office?	☐	☐
Do you like following a regular routine?	☐	☐

People who say "yes" to most of those questions like to work in places such as:

- Airline offices
- Business offices
- Mail rooms
- Doctor's offices
- Banks
- Insurance companies
- Government offices
- Store offices
- Libraries
- Travel bureaus
- Telephone companies

These are some of the jobs that people working at those places can do:

- Typist
- Bank teller
- Payroll clerk
- Secretary
- Accountant
- Medical secretary
- Court reporter
- Insurance adjuster
- Postal clerk
- Auditor
- File clerk
- Receptionist
- Telephone operator
- Word processing operator
- Library assistant
- Ticket agent
- Rental agent
- Cashier
- Medical records librarian

	Yes	**No**
Do you like talking to people?	☐	☐
Do you like to persuade people to do what you would like them to do?	☐	☐
Do you see yourself as a leader?	☐	☐
Are you self-confident?	☐	☐
Do you think you could speak in front of a group of people?	☐	☐
Do you see yourself as a real go-getter?	☐	☐
Do you like to set goals for yourself and others, and then reach them?	☐	☐
Do you like to organize people?	☐	☐

People who say "yes" to most of those questions like to work in places such as:

Furniture stores
Clothing stores
Accounting companies
Real estate companies
Radio stations
Grocery stores
Department stores
Insurance companies
Construction companies
Television stations
Personnel offices

These are just some of the jobs that people working at those places can do:

Auctioneer
Real estate agent
Business manager
Product demonstrator
Gas station manager
Car rental clerk
Store manager
Office manager
Insurance salesperson
Door-to-door salesperson
Banker
Car salesperson
Telephone solicitor
Purchasing officer
Pawnbroker
Production manager
Shoe store manager
Route salesperson
Street vendor

	Yes	No
Do you like to help people?	☐	☐
Do you like to work with people rather than with things?	☐	☐
Can you teach people how to do things?	☐	☐
Can you make people feel better physically?	☐	☐
Do you like to help people find out ways they can help themselves?	☐	☐
Do you work well with other people?	☐	☐
Can you plan a party?	☐	☐
Have you worked as a volunteer with a hospital, clinic or church group?	☐	☐
Can you explain things clearly to other people?	☐	☐

People who say "yes" to most of those questions like to work in places such as:

Schools
Restaurants
Personnel departments
Dental offices
Insurance companies
Barber shops
Prisons
Fitness clubs
Hospitals
Movie theatres
Churches
Funeral homes
Beauty salons
Child care centres
Homes for the handicapped
Senior citizens' homes

These are just some of the jobs people working at those places can do:

Ambulance attendant
Fitness teacher
Baby-sitter
Funeral attendant
Movie usher/usherette
School teacher
Claims adjuster
Dental assistant
Homemaker
Counsellor
Nursing aid
Police officer
Crosswalk attendant
Companion/homemaker
Hospital porter
Child care worker
Houseparent
Restaurant hostess
Theatre ticket taker
Nurse
Bartender
Manicurist
Security guard
Occupational therapy aide
Morgue attendant

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PERSONAL ABILITIES

Beside each type of ability, list and describe your personal abilities.

Types of Abilities	Specific Personal Abilities	Description of Each Personal Ability
STRENGTHS e.g., • things I do well • things I like to do		
LIMITATIONS e.g., • things I do not do well • things I do not like to do		
PERSONAL GOALS e.g., • things I want to do • things I want to achieve • places I want to go		
COURSE GOALS e.g., • things I want to learn • marks I want to achieve		
CAREER GOALS e.g., • jobs I want to experience • further education/ training I want to take • what I want to be doing in 5 years, 10 years.		

OPPORTUNITIES FOR FURTHER EDUCATION/TRAINING

Using community resources; e.g., newspapers, telephone and business directories:

- identify and list the names of institutions that provided further education/training related to your career interest area
- describe the courses offered
- investigate and record the cost (if any) of each course
- identify three businesses/industries, in which you might seek employment that provide staff with opportunities for further education/training. Describe the opportunities.

Institutions	Description of Courses	Cost per Course
Businesses/Industries	**Further Education/Training Opportunities**	**Cost (if any)**

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KEY TERMS

- Make copies of this sheet and keep the sheets in a binder.
- List the terms commonly used in course-related occupations.
- Define/describe each term.
- Add additional terms with their definitions/descriptions when you hear or see them used.
- Use the list to review key terms throughout the course and before tests.

Term	Definition/Description

INTERVIEW GUIDE
ENTRY-LEVEL JOB REQUIREMENTS

Course: ____________ Student's Name: ____________

Name of Person Interviewed: ____________ Date: ________ Occupation: ____________

1. What are the entry-level requirements in this occupation?

2. What technical knowledge is required?

3. What practical skills are required?

4. a. Is a driver's licence necessary? ☐ Yes ☐ No

   b. If "yes" to 4a, is a defensive driving certificate necessary? ☐ Yes ☐ No

5. Is there any heavy lifting or other physical job requirements?

6. Would fear of heights or enclosed spaces affect employment opportunities?

7. Is shift work a requirement? If so, what are the typical shifts?

8. Are there any other special entry-level requirements of which a prospective employee should be aware? Please specify.

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SAMPLE LETTERS OF APPLICATION

1. Applying for a Non-advertised, Non-specific Job
(This type of letter may be used to find out whether the company needs someone with your abilities.)

1234 – 56 Street
Anytown, Alberta
T1A 2B3
June 1, 19 _____

M ___ J. Stand
Personnel Officer
Rocket Tool Company
5678 – 90 Avenue
Anytown, Alberta
T2R 3Z4

Dear M ___ Stand:

I am interested in a position as ________________________________ with the Rocket Tool Company.

Enclosed is a résumé outlining my education and experience. As indicated, I have skills which, I believe, would be beneficial to your organization.

I would like to discuss with you the possibility of employment with your company and will call you in a few days to see if an interview can be arranged. I will be pleased to provide references and any further information you may require. In the meantime, if you have any questions, please telephone ______________________.

Yours truly,

A. Student

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2. **Applying for a Non-advertised Specific Job**
(This type of letter may be used to find out whether the company has an opening in a specific job.)

1234 – 56 Street
Anytown, Alberta
T1A 2B3
June 1, 19 _____

M __ D. Band
XYZ ____________
66 Broadway Avenue
Anytown, Alberta
T0T 5L4

Dear M ___ Band:

I would be interested in discussing with you the possibility of employment as a(n) ________________________________ with the ________________________________.

When I graduate, 19 ______, I will have a Certificate of Achievement with credits in ____. I believe my education and experience may qualify me for a suitable position with your company.

I would be pleased to meet you, at your convenience, to discuss possible employment, and to provide additional information you may require. You may contact me at the above address, or by telephoning _______________ (after 4 p.m.).

Yours truly,

A. Student

3. Applying for an Advertised Job (No Résumé)

1234 – 56 Street
Anytown, Alberta
T1A 2B3

June 1, 19 ___

M___ Z. Springwater
Forest Corporation
R. R. 5
Anytown, Alberta
T6T 7T6

Dear M___ Springwater:

In reply to your advertisement in the *Daily News* of May 28, 19 ____, I would like to be considered for the position of ________________.

The qualifications you are seeking are closely related to my education and previous work experience while attending both junior and senior high school. I really enjoy working outdoors.

I can be contacted by telephone after 4 p.m. at ____________.

I would appreciate meeting you at your earliest convenience to discuss my suitability for the position advertised.

Yours truly,

A. Student

4. Applying for an Advertised Position (Résumé Attached)

1234 – 56 Street
Anytown, Alberta
T1A 2B3
June 1, 19 _____

M ___ A. Trann
ABC _______________
21 Sunnyside Street
Anytown, Alberta
T3G 4L5

Dear M ___ Trann:

I am writing in reply to your advertisement for a _________________________________ in the *Daily News* of May 29, 19 _____.

As you can see from the attached résumé, my education, training and past work experience correspond to the qualifications you are seeking. Your advertisement noted that you want someone with initiative and a sense of responsibility. I believe I have both of these qualities. My references, available upon request, will confirm my work ethics and skills.

I can be reached at the above address, or by telephone after 4:00 p.m. at ________________.

Yours truly,

A. Student

SAMPLE RÉSUMÉS

A résumé is a written statement that shows your abilities, education, work experience and other information you want a prospective employer to know about you.

When applying for a job, ask yourself what qualities and abilities the employer is looking for, and arrange your personal abilities in a logical sequence using both of the following styles of résumé:

- Chronological résumé. This format gives your work experience in historical sequence.
- Biographical résumé. This reads like a letter and uses a paragraph format to describe your abilities and experience.

CHRONOLOGICAL RÉSUMÉ

Any Student
1234 – 56 Street
Anytown, Alberta
T1A 2B3
Telephone: 123–4567

Position Desired:	________________________________
Education:	Currently completing Grade 12 at ____________________ School, Anytown, Alberta Grades 8 and 9, ____________________ School, Anytown, Alberta Will graduate 19 ___ with a Certificate of Achievement.
Work Experience:	January 1986 to present -- sales assistant, XYZ Department Store, Anytown, Alberta (part-time/weekends) September 19 ___ to June 19 _____ -- cashier, Family Restaurant, Anytown, Alberta (evening employment) July to August 19 _____ -- lifeguard, City Pool, Anytown, Alberta (summer employment)
Volunteer Activities:	Hospital assistant Playground assistant
Hobbies and Interests:	Swimming, skating, reading, board games
References:	Available upon request

BIOGRAPHICAL RÉSUMÉ

Any Student
1234 – 56 Street
Anytown, Alberta
T1A 2B3
Telephone: 123–4567

Employment Objective:	To obtain a job in which I will be able to make good use of my education, training and desire to achieve success as ______________________________.
Education:	I went to primary school in Winnipeg, Manitoba, and then moved with my family to Anytown, Alberta. I attended ______________________________ Junior High School and am now completing a program at ______________ ____ Senior High School. I will graduate this year with a Certificate of Achievement. Courses taken relating to my career goals include: ______________________________ ______________________________ ______________________________ ______________________________
Work Experience: From January 19 ____ to Present	I have been working part-time as a sales assistant at the XYZ Department Store. The work involved providing customer service, sales, handling cash and making change. In the evenings I have been cashiering at the Family Restaurant. During my last two summer holidays, I have worked as a part-time lifeguard at the City Pool. This has provided me with the opportunity to develop additional skills in first aid and human relations.
Other Activities:	My hobbies include swimming, skating, reading travel books and board games. When requested, I provide volunteer services at the local hospital and children's playground.
References:	I will be pleased to provide references upon request.

PRESENTATION STRATEGIES

Use the following strategies and the evaluation chart whenever a guest or classmate makes a presentation. You may also use these strategies to check your presentation abilities when you are making a presentation.

LEEP, CHECK: PRESENTATION STRATEGIES*

Purpose

- to provide students with memory cues when making oral presentations.

Description of Strategies

LEEP
L: Loud and clear
E: Expression
E: Eye contact
P: Posture

CHECK
C: Checking the audience
  - Is everyone ready to listen?
H: Having eye contact with the audience
E: Expressive
C: Clear
  - Make sure you speak so that everyone can understand your words.
K: Keen to be heard
  - Show you're interested in what you're saying; be enthusiastic.

Evaluation Chart

Strategy	Excellent 5	4	Good 3	2	Poor 1
L: Uses a loud, clear voice					
E: Shows good facial and voice expressions					
E: Makes regular eye contact					
P: Maintains good posture					
C: Checks to see if audience is attentive					
H: Has good eye contact with everyone in audience					
E: Expresses self well, orally, visually					
C: Speaks clearly					
K: Keeps audience interested					

---

* Adapted from *SPELT: A Strategies Program for Effective Learning/Thinking*: Inservice Edition, pages 128–129, copyright 1987 by R. Mulcahy, K. Marfo, D. Peat and J. Andrews. Reprinted by permission.

PRE-EMPLOYMENT INQUIRIES

The inquiries given below are the types of questions frequently posed by employers to job candidates. This chart gives some examples of the inquiries that are permitted and those that are not recommended.

Subject	Permitted Inquiries	Inquiries Not Recommended
Gender, Marital Status	Availability for shift work, travel, etc.	Plans for marriage, family, child care. Inquiries specific to gender or marital status
Race, Colour, Ancestry or Place of Origin	Are you legally permitted to work in Canada?	Place of birth, citizenship status, racial origin, next of kin
Name	Name used in previous employment and/or education for purposes of reference check	Maiden name, "Christian" name or reference to origin of name
Military Service	Military service in Canada	Foreign military service (this might indicate place of origin)
Languages	Fluency in any language specifically required by a job	Other languages when not required in a specific job
Photographs		Photographs would reveal race, gender, etc.
Clubs or Organizations	Membership in professional clubs or organizations, hobbies or interests that do not reveal gender, race, religious beliefs, ancestry or place of origin	Specific inquiries about club and organization memberships that would indicate race, religious beliefs, ancestry or place of origin
Age	Are you of legal age to work in Alberta?	Specific age over 18, including retirement information
Height and Weight	Describe job duties requiring heavy lifting or other physical job requirements	Minimum/maximum height and weight requirement/stipulations
Disability	Statement that job offer is contingent upon a satisfactory job-related medical examination. Do you feel you are capable of performing the duties as outlined?	General disabilities, limitations, present or previous health problems, workers' compensation claims or absence due to stress or mental illness
Non-smoking	An employer may ask if an applicant is a non-smoker or indicate successful applicant will be required to work in a non-smoking environment	Asthmatic or permanent respiratory conditions that may be affected by smoke

SAMPLE JOB APPLICATION FORM (1)

Complete all blanks. Use CAPITAL LETTERS.

General Information

Name in full ______________________________
Last First Middle

Address ______________________________ Telephone __________
Number and Street City Province Postal Code

Position you are applying for? ______________________________

When can you start work? ______________________________

Education – Most recent school first.

Name of School Attended	Dates of Attendance	City

Employment Background – Most recent job first.

Dates	Name and Address of Employer	Job Title and Duties

General

What machines or equipment can you operate? ______________________________

What additional experience or training have you had? ______________________________

References – Other than relatives.

Name	Occupation	Firm Name and Address	Telephone

To the best of my knowledge, the above information is truthful and accurate.

Signature ______________________________

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SAMPLE JOB APPLICATION FORM (2)
APPLICATION FOR EMPLOYMENT

Please print or type.

Date: ______________________

Name: ______________________ (Last, First, Middle Initial)

Social Insurance Number: ______________________

Address: ______________________ (Number and Street, City, Province, Postal Code)

Phone: ______________________

Previous Address (if less than 1 year at above address): ______________________

Please list all employment beginning with present or most recent employer. (Attach an additional sheet, if more space required.)

Date	Name and Address of Employer	Type of Job and Supervisor	Wages or Salary	Reason for Leaving
From M Y				
To M Y				
From M Y				
To M Y				
From M Y				
To M Y				

EDUCATION

School/ College	Name	Certificate/ Diploma	Graduation Year
Junior High School			
Senior High School			
College			
Other			

Abilities suited to position applied for: ______________________

Hobbies and activities: ______________________

Why do you want to work for this company? ______________________

References (personal and professional): ______________________

Applicant's signature: ______________________

SAMPLE JOB APPLICATION FORM (3)
DETAILED APPLICATION FOR EMPLOYMENT

This application form is intended to be a sample only; it complies with the *Individual's Rights Protection Act*. It is not intended to reflect all of the information that an employer might need. It is recognized that certain employers may, for various reasons, require particular job-related information about an individual or his or her background.

(PLEASE PRINT CLEARLY)

Position applied for: ______________________________

Name: ____________________ Telephone: ______________ (residence)

Address: ____________________ ______________ (business)

____

____

(Postal Code)

Are you 18 years of age or over? ________ Yes ________ No

Are you legally entitled to work in Canada? ________ Yes ________ No

Are you willing to work in a non-smoking environment? ________ Yes ________ No

EDUCATION

School	Course of Study (List all major subjects)	Number of Years Completed	Degree or Diploma Obtained
High School			
College			
Other Institutions			

List any additional education or training of which you would like us to be aware.

____

____

____

____

EMPLOYMENT HISTORY
(Begin with Most Recent)

Company Name and Address	Position Held	From	To	Supervisor's Name	Reason for Leaving

May current employer be contacted for a reference? ______ Yes _______ No

PERSONAL INTERESTS AND ACTIVITIES (such as clubs, organizations, etc.) to which you belong. Exclude anything with an ethnic or religious affiliation.

____

____

ADDITIONAL INFORMATION

____

____

EXPERIENCES

Give two work-related references. (Recent graduates may name a teacher or professor as one.)

1. ____________________ years acquainted: _____ Phone: ______________

2. ____________________ years acquainted: _____ Phone: ______________

Personal reference:

Name: ____________________ years acquainted: _____ Phone: ______________

Note: I understand that any offer of employment may be made contingent upon a satisfactory JOB-RELATED medical. I declare that the statements made by me in this application form are true and complete. I understand and agree that a false statement may disqualify me from employment, or result in dismissal.

Signature: ______________________________ Date: ______________

SAMPLE EMPLOYMENT HISTORY FORM

EMPLOYER: ______________________________
(Most recent first.)

ADDRESS: ______________________________

TELEPHONE: ______________________________

TERM OF EMPLOYMENT: ______________________________

SUPERVISOR: ______________________________

POSITION AND DUTIES: ______________________________
(Use a copy of the job description or detail specific activity. Use action words.)

REASON FOR LEAVING: ______________________________
(State in a positive manner.)

REFERENCES

NAME	ADDRESS	TELEPHONE	OCCUPATION	YEARS KNOWN
1.				
2.				
3.				

GENERAL INFORMATION (hobbies, activities, volunteer work)
(Use action words to describe additional skills, experiences, or extra-curricular activities related to the position.)

____

DECLARATION: I HEREBY DECLARE THAT TO THE BEST OF MY KNOWLEDGE, THE INFORMATION ON THIS APPLICATION FORM IS COMPLETE AND ACCURATE IN EVERY RESPECT. I UNDERSTAND THAT A FALSE STATEMENT MAY DISQUALIFY ME FROM EMPLOYMENT OR CAUSE MY SUBSEQUENT DISCHARGE IF I AM EMPLOYED.

DATE: ____________ **SIGNATURE:** ______________________________

NOW, WHAT IS YOUR FIRST IMPRESSION WHEN YOU REVIEW YOUR APPLICATION?

From *Job Search Information Guide*, Special Education Services, Alberta Education, May 1986.

NETWORKING

The following groups of people may be encouraged to become part of your network. Some may be willing to act as a reference for you, others may help you find employment or help you in other ways.

Family and relatives
Teachers, coaches, counsellors
Job, club, support group members
Classmates (previous and current)
People seen frequently (tellers, cashiers, druggists, postal carriers)
Former customers/clients/business competitors
Club members (bowling, curling, baseball, bridge, fitness, skiing)
Members of organizations, associations, special interest groups and unions
Professionals (dentists, chiropractors, lawyers, counsellors, doctors)
Parents of children's friends
Former employers
Friends and neighbours
Teachers, professors, instructors
Church and community members/leaders
Casual acquaintances (a friend of a friend of a friend)
People in contact with many others (hairstylists, waitresses, bus/cab drivers)
Former co-workers and colleagues
Employers (personnel managers, company recruiters)
People at specific occasions (wedding, party, banquet guests)
Volunteer coordinators/associates

- Are there other groups you could add to this list? Add them.
- Using a separate sheet of paper for each group, list the names, addresses and telephone numbers of each person you know that fits each group.
- The resulting lists will represent your network. You'll probably be surprised with how many people there are in your network.

INTERVIEW STRATEGIES

1. Purpose of the interview

   a. The interview helps you, the prospective employee:
      - find out more about the company and the job
      - convince the employer of your suitability for the job
      - decide whether you really want the job.

   b. The interview helps the employer:
      - find out more about you; e.g., knowledge, skills, attitude
      - see what you can do for the company; your suitability
      - judge your human relations skills
      - check the information you provided in your letter of application, résumé or application form.

2. Preparing for the interview

   a. Well before the interview date:
      - find out all you can about the company; e.g., number of employees, its products and services
      - have confidence in yourself; establish the fact that you know that you have abilities that the company needs
      - rehearse answering questions you think may be asked. (See Resource 15, "Sample Interview Questions".)

   b. On the day of the interview:
      - stay calm
      - check your grooming
      - dress appropriately
      - arrive a little before the time set for the interview.

3. Participating in the interview
   - greet the interviewer; e.g., "good morning"
   - listen to the question; if you do not understand a question, ask for the question to be repeated or rephrased
   - respond clearly
   - ask questions about wages, benefits, etc.
   - at the end of the interview, thank the interviewer.

4. After the interview

   a. Assess your performance
      - what went well?
      - what did not go well?
      - how could you have improved your performance?

   b. Participate in more practice interviews
      - repeat the things you did well
      - correct the things you feel could be improved
      - practise, practise, practise, until you feel confident to handle almost any interview situation.

(See also Resource 38, "Stages of the Interview".)

SAMPLE INTERVIEW QUESTIONS

- Students seeking employment may be asked some of the following questions. If you feel that a question is not appropriate, you do not have to answer it. (See Resource 10: Pre-employment Inquiries.)
- Working in small groups, practise asking and answering the following questions:

1. What are your career plans?
2. What other activities are you involved in; e.g., sports, clubs, hobbies, community activities?
3. What subject(s) do you like best?
4. What subject(s) do you like the least?
5. What do you usually do during the summer?
6. Do you work part-time? At what? Where?
7. What other part-time/summer jobs have you had?
8. Which job did you most enjoy? Why?
9. What would you like to be doing in five years? In ten years?
10. What are your best skills?
11. What do you least like doing?
12. What abilities do you have that relate directly to this job/company?
13. What wage/salary do you expect?
14. Have you ever failed a subject at school? What? Why?
15. Have you ever been fired from a job? What? Why?
16. Do you prefer to work as a member of a team or alone? Why?
17. Are you a creative person? In what ways?
18. Do you have initiative? Describe one example of your initiative.
19. Are you prepared to take further education/training?
20. Are you able to work overtime if required?
21. Do you have any condition that may require medical treatment on-the-job?
22. Is there any reason that you may require special facilities in the workplace?
23. How would you describe your attitude toward work?
24. What do you know about the company?
25. Why did you apply for a job with this company?
26. Are there any questions that you would like to ask me?

- Are any of these questions not recommended by the Alberta Human Rights Commission? If yes, list the number(s) and indicate reasons why you believe the question(s) to be inappropriate. (Use separate sheet of paper.)

INTERVIEW EVALUATION CHART

Interviewer: ______________________________ Date: __________________

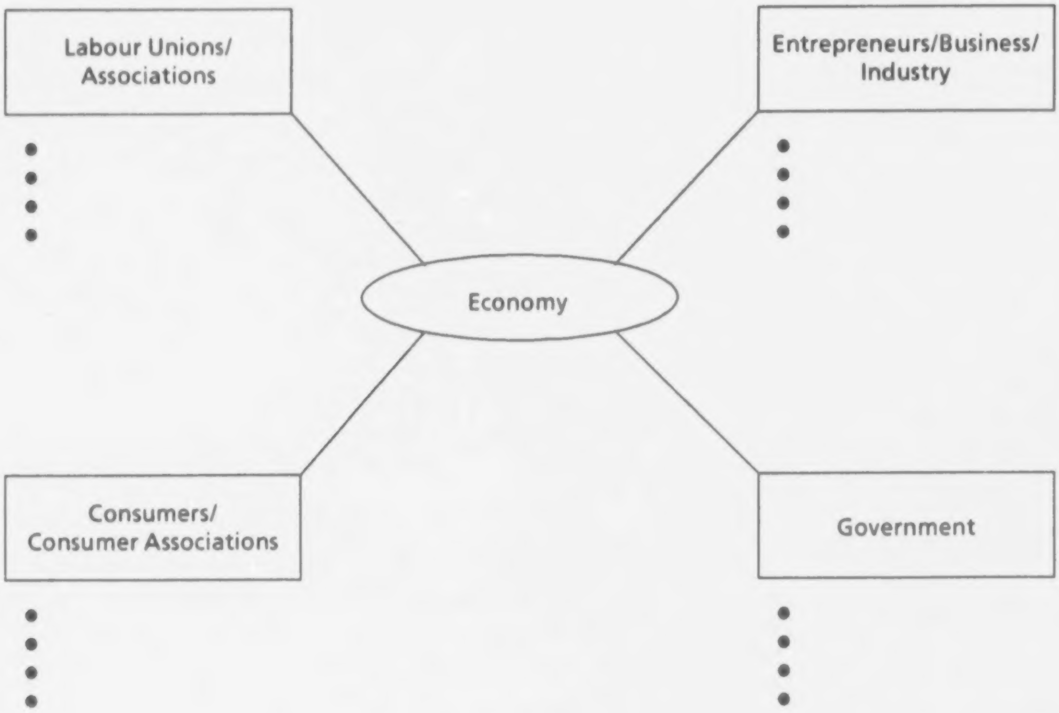
Interviewee: ____

Position applied for: _______________________________________

Qualities/Abilities	Key Factors	Evaluation				
		Excellent 5	4	Good 3	2	Poor 1
Appearance	Grooming					
	Appropriate dress					
	Poise					
Speech	Clarity					
	Use of appropriate vocabulary					
	Vocal quality					
Personality Traits	Friendly					
	Outgoing					
	Enthusiastic					
Character Traits	Ambition					
	Manners					
	Conscientiousness					
	Work ethic					
Skills/Abilities (In column 2, specify key skills/abilities needed for the position.)	•					
	•					
	•					
	•					
Preparation	Job application/résumé					
	Organized					
	On time					
Participation	Proper greetings					
	Listened					
	Responded appropriately					
	Asked questions					

KEY GROUPS IN THE ECONOMY

List four influences that each group has on Alberta's economy.


Labour Unions/ Associations
Entrepreneurs/Business/ Industry
Economy
Consumers/ Consumer Associations
Government

PERSONAL ANALYSIS CHART

Describe your own human relations skills, your personality and your traits. List them on the following chart and indicate if each is a strength or a weakness. Perform a similar analysis of a classmate or fellow worker.

Self/Other Analysis Chart					
Skills/Abilities	Evaluation				
	Very Strong 5	4	Strong 3	2	Very Weak 1
Human relations skills: ● ● ● ● ● ● ●					
Personality: ● ● ● ● ● ● ●					
Traits: ● ● ● ● ● ● ●					

What are your strongest abilities? ______________________________

____

____

Which is your weakest ability? ______________________________

____

____

What might you do to strengthen the weakest ability? ____________________

____

____

PERSONAL GROWTH CHART

Eight personal traits are listed below; beside each one:

1. Indicate with a check mark (✓) whether this is a very strong, moderately strong or weak part of your personality.
2. Suggest how you might improve each trait.

Trait	Scale			Suggestions for Personal Growth
	Very Strong	Moderately Strong	Weak	
Attitude				
Courtesy				
Initiative				
Punctuality				
Responsibility				
Cooperation				
Honesty				
Sense of Humour				

PERSONAL AND PUBLIC HYGIENE PRACTICES

PERSONAL HYGIENE

Personal hygiene refers to practices performed and the standards set by individuals to maintain their health and cleanliness.

Personal hygiene standards and practices are important because they influence:

- a person's ability to perform necessary work skills
- a person's ability to work with others
- a person's employability.

Personal hygiene practices include:

- bathing daily
- using appropriate deodorant or antiperspirant
- practising good eating habits
- exercising regularly
- having regular medical, dental and optical checkups
- washing/laundering clothes
- maintaining good mental health.

PUBLIC HYGIENE

Public hygiene refers to practices required by governments and performed by people in industry/business to protect the health of the general public.

Public hygiene practices are important because they influence standards including:

- the quality of the environment in the workplace and in the community
- the quality of product safety or the safety of services offered in the workplace.

Public hygiene practices and standards in the workplace include:

- providing clean washrooms and toilets
- maintaining a pollution free environment; e.g., clean air, reasonable noise levels
- wearing protective clothing where required
- maintaining a clean and safe work area.

In the Province of Alberta, the Department of Occupational Health and Safety, has the responsibility to safeguard the health of workers, employers and others. Department inspectors visit work sites and promote:

- safe and hygienic work practices
- safe personal and environmental use of chemicals, tools and equipment.

REGIONAL OFFICES: ALBERTA OCCUPATIONAL HEALTH AND SAFETY

CALGARY REGION .... 2nd Floor
1021 – 10 Avenue, SW
Calgary, Alberta
T2R 0B7
Phone: 297–2222

EDMONTON REGION .... 9321 – 48 Street
Edmonton, Alberta
T6B 2R4
Phone: 427–8848

FORT MCMURRAY .... 6th Floor, Provincial Building
9915 Franklin Avenue
Fort McMurray, Alberta
T9M 2K4
Phone: 743–7202

GRANDE PRAIRIE .... 3rd Floor, Provincial Building
10320 – 99 Street
Grande Prairie, Alberta
T8V 6J4
Phone: 538–5249

LETHBRIDGE .... 3rd Floor, Chancery Court
220 – 4 Street, South
Lethbridge, Alberta
T1J 4J7
Phone: 381–5522

MEDICINE HAT .... 202, 346 – 3 Street, SE
Medicine Hat, Alberta
T1A 0G7
Phone: 529–3530

RED DEER .... 6th Floor, Provincial Building
4920 – 51 Street
Red Deer, Alberta
T4N 5Y5
Phone: 340–5170

Copies of the act and regulations are available at nominal cost from Government of Alberta, Publication Services at:

Queen's Printer Building
11510 Kingsway Avenue
Edmonton, Alberta
T5G 2Y5
Phone: 427–4952

or

#601, J. J. Bowlen Building
620 – 7 Avenue, SW
Calgary, Alberta
T2P 0Y8
Phone: 297–6251

IDENTIFYING PUBLIC HYGIENE PRACTICES

Occupational Course: ____________________ Student's Name: ____________________

Obtain permission from your teacher/supervisor before arranging to visit a workplace to collect information:

Industry/Business Visited	Public Hygiene Practices Identified
1. Name: Address:	
2. Name: Address:	
3. Name: Address:	

Date: ____________________

SAFETY STANDARDS AND REGULATIONS

In any business or industry there are hazards to safety that make regulations and strict standards of behaviour necessary. People who do not follow these regulations often cause injury to themselves and others. In both the school lab and in the workplace the key standard is expressed as follows:

SAFETY IS EVERYONE'S BUSINESS

GENERAL SAFETY REGULATIONS

1. Equipment must not be operated without the teacher's/supervisor's permission and only after you have been instructed in its safe use.
2. Safety equipment must be used at all times. Safety regulations must be followed.
3. Focus on the task. Shouting, whistling or other distracting noises are not permitted.
4. All accidents and breakages must be reported to the teacher/supervisor immediately.
5. Horseplay or rowdiness will not be tolerated in the lab at any time.
6. Candy and gum are safety hazards and are not permitted in the lab at any time.
7. Clean-up is everyone's responsibility. "A CLEAN LAB IS A SAFE LAB." If you make a mess, you are responsible for cleaning it up.

The above regulations are essential for your own safety as well as that of classmates. Only by observing them can you gain maximum benefit from your time in the lab. However, if you do violate a regulation, the following will result:

A. First Violation – warning from the instructor.
B. Second Violation – disciplinary action.
C. Third Violation – removal from the lab.

Each time a violation occurs, you must fill out and sign a violation sheet as a record of what happened and action taken.

CLOTHING AND DRESS SAFETY REGULATIONS

1. Protective safety equipment must be worn when appropriate.
2. Sweaters, coats and jackets must be left in your locker.
3. Sleeves should be rolled tightly above the elbow.
4. Jewelry (rings, watches, bracelets, neck charms) should be removed and left in your locker.
5. Long hair (shoulder length or longer) must be held back with a pin, hair net or elastic band.
6. Aprons, if worn, should be tied snugly at the back. All shirts, blouses, ties and belts should be tucked in.
7. Shoelaces must be tied tightly. High-heeled shoes or boots are not permitted. Safety boots or shoes with thick soles are preferable.
8. Eye glasses should be held in place with a band around the head. (The same type of band as is worn for sporting activities.) Safety glasses will be provided when necessary.

REMEMBER! 88 per cent of all accidents can be prevented by avoiding **unsafe acts.**

THINK BEFORE YOU ACT!   DON'T BECOME A STATISTIC!

MATERIALS HANDLING SAFETY REGULATIONS

1. Place all flammable liquids, acids and solvents in appropriate containers and keep them in metal cabinets.
2. Large quantities of flammable material should be stored in an area separate from the lab proper.
3. Properly label all containers holding flammable materials and acids and all drawers, boxes, bins and cabinets containing such materials.
4. Wear protective safety equipment, such as a face shield, rubber gloves and an apron when mixing toxic or volatile chemicals or liquids.
5. Deposit all scraps, shavings, chips and oily waste materials in proper containers. Oily rags should be deposited in a metal can.
6. When mixing acid and water, remember, ADD ACID TO WATER; never water to acid.
7. Supplies and materials should never be stored on top of lockers or cabinets.
8. Stored material should be easily and safely accessed.
9. Hands should be thoroughly washed after working with toxic chemicals such as film developers. Always wash your hands before leaving the lab.

TOOL HANDLING SAFETY REGULATIONS

1. Hand tools should be maintained continually and kept in working condition.
2. Use the proper type and size of hand tools for each job.
3. When working with a sharp-edged tool, keep the sharp edge of the tool pointing down and held away from the body. Sharpen the tool regularly.
4. When passing a sharp-edged tool from one person to another, pass the handle first. Never throw tools around.
5. When working with a sharp-edged tool on small stock, the stock should be firmly clamped in a vise and hands kept behind the cutting edge of the tool.
6. When using a chisel or other sharp-edged tool, always pare or cut away from the body rather than toward it.
7. Wear safety glasses or shields when performing any operation that will result in chips, shavings or possible flying particles.
8. Never permit sharp-edged tools to project beyond the edge of the workbench.
9. Never carry sharp-edged tools in your pockets.
10. Keep your eyes constantly on the tools and materials being used.
11. If using portable, electric hand tools, make sure that such tools are properly grounded.

MACHINE USE SAFETY REGULATIONS

1. No machine can be operated without first receiving permission from the teacher/supervisor.
2. The teacher/supervisor will inspect both the stock and the machine to ensure that you have selected the proper machine for the job and that it is properly adjusted.
3. No machine is to be operated while the teacher/supervisor is away from the lab.
4. Students must not use any machine unless specific instruction has been given on the safe use of such a machine.
5. No electrical machine shall be adjusted, oiled or cleaned until it has come to a complete stop.
6. All safety guards and enclosures are to be in their proper positions when using a power-driven machine.
7. The power should be turned off when the job is complete. Never walk away from a machine and leave it running.
8. Before starting any job, make sure that the worktable or surface of the machine is completely free of scraps, tools or stock.

BEST COPY AVAILABLE

9. All scraps of wood and refuse should be cleared from the floor around the machine.

10. Keep fingers away from all moving parts of the machine.

11. Do not distract others who are using a machine and do not converse with anyone while the machine is running. If you need to converse, first turn off the machine.

12. Never begin to use a machine until it has reached the proper speed for the job.

13. Never attempt to hasten the stopping of a machine by jamming stock into its moving parts or by grabbing the rotating spindle or belts.

14. Before making special cuts and set-ups on a machine that may involve hazards, the teacher/supervisor must examine and approve the set-up.

15. Check all stock to see that it is free from grit, nails and loose knots.

16. Proper protective safety equipment such as safety goggles or safety shields should be worn at all times when operating any machine tools.

17. Be sure that everyone is clear of the machine before turning on the power switch.

18. Stay clear of a machine being operated by another person. The only person inside the safety zone should be the operator of the machine.

19. Be agreeable with others. Respect other people's rights and privileges and cooperate wherever and whenever possible.

SAFETY PROCEDURES RECORD CHART

1. On an ongoing basis, record each safety procedure that must be followed in this course.
2. When you believe that you can regularly demonstrate competency using each procedure, ask your teacher/supervisor to "sign-off" and date the procedure.

Safety Procedure	Competency Demonstrated	Date

3. Which of the above safety procedures are governed by WHMIS regulations? Highlight them.

2. ORGANIZATIONAL SKILLS

All occupations are composed of a number of different tasks that a worker is expected to perform. Every task requires some planning and organization if it is to be completed on time and to the satisfaction of self and others.

The ability to plan and organize work and to practise ethical behaviour in the workplace are important skills in all occupations.

The organizational skills developed in this unit include:

A. Work Ethics

B. Planning and Organization

C. Time Management

D. Task Management

E. Work Standards.

Teachers of students in occupational courses are encouraged to integrate their instructional planning with other teachers and community partners. Through cooperative planning they could:

- provide other teachers with materials they can use to add relevance to organizational skills instruction in the classroom; e.g., vocabulary lists, types of instructions used in the courses, trade magazines
- require students to engage in task-related organization and planning activities
- encourage student use of libraries and other resource centres in the classroom, school and community
- encourage librarians to obtain related resources and share these with students
- have a visible and accessible in-class resource centre that includes trade magazines, reference journals, work manuals and related print materials.

RESOURCES

STUDENT LEARNING RESOURCES

- Student workbook (1992) available for each 36-level occupational course.

- *Working: Today and Tomorrow.* Canadian Edition. Toronto, Ontario: Irwin Publishing, 1990.

Correlation of Learning Objectives with Student Resource

Concepts, Skills and Attitudes	*Working: Today and Tomorrow*
A. Work Ethics	Chapters 5, 8, 10
B. Planning and Organization	Chapter 12
C. Time Management	Chapters 8, 12
D. Task Management	Chapters 1, 5, Appendix
E. Work Standards	Chapter 11

Specific sections of each chapter are referenced under "Suggested Activities/Community Partnerships".

TEACHING RESOURCES

- Resource 25, "Desirable Personal Characteristics"
- Resource 26, "Ethical Characteristics of Behaviour"
- Resource 27, "Alberta Human Rights Commission"
- Resource 28, "Ethical Characteristics of Behaviour: The Good and the Bad"
- Resource 29, "Ethical Characteristics of Behaviour: Evaluation Chart"
- Resource 30, "Project/Task Plan"
- Resource 31, "Time Grid"
- Resource 32, "Time Card"
- Resource 33, "Dimensions of Service"
- Resource 34, "Survey of Service"
- Resource 35, "Work Standards"
- Employment Standards Code: Province of Alberta
- Martin, W. B. *Quality Customer Service*. Crisp Publications, Inc., 1987
- Statements of ethics from related occupations/organizations
- Community partners.

A. WORK ETHICS

Each person lives by a set of personal ethics that help shape individual behaviour at home, in the school and in the workplace.

In the world of business and industry, ethics often include:

- statements concerning desirable and expected worker conduct
- the way in which each worker acts toward work and relates to others in the workplace.

An understanding of the concept of ethics and the practice of ethical behaviour in the workplace are essential entry-level occupational skills.

The concepts, skills and attitudes related to work ethics developed in this unit include:

1. Describes work ethics of related occupations.
2. Demonstrates ethical behaviour.
3. Demonstrates willingness to work.
4. Demonstrates dependability.
5. Demonstrates concern for others.
6. Demonstrates pride in work.
7. Follows instructions.

1. ETHICS OF RELATED OCCUPATIONS

Each occupation, usually has its own set of ethics. Ethics may be formal (i.e., written for all to see) or informal (i.e., unwritten but generally understood, accepted and practised).

Statements of ethics commonly include an outline of:

- rights
- responsibilities
- acceptable relations with others
- acceptable dealings with others.

Some ethics (e.g., rights, responsibilities) may be changed through:

- labour negotiations
- changed practices within the industry
- legislation.

It is both the employer's and the employee's responsibility to be aware of occupational ethics and rights of both groups to expect that occupational ethics will guide behaviour in the workplace.

Resource 25, "Desirable Personal Characteristics", provides a statement outlining the Government of Alberta's position with respect to the role that schools play in developing desirable personal characteristics among children of school age.

Work ethics and human rights are closely related. In Alberta, human rights are protected by the *Individual's Rights Protection Act*. This act is Alberta's anti-discrimination legislation and it is administered by the Alberta Human Rights Commission. (See Resource 27: "Alberta Human Rights Commission".)

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow:*

   - Chapter 5, "Businesses Need Resources" (pages 65–67)
   - Chapter 8, "Working with Others" (pages 114–116)
     "Rights and Duties in the Workplace" (pages 116–118)
     "Changes in Your Status" (pages 122–124)
     "Productive Workers Help Economic Growth" (pages 124–125)
   - Chapter 10, "The Importance of Attitude" (pages 148–150)
     "Getting Ahead in Your Job" (pages 153–155).

2. Invite community partners from industries/businesses to:

   - discuss the topic: Ethics in the ____ workplace.
   - bring statements of conduct or ethics that apply to workers in related occupations.

   Community partners may include representatives of:

   - labour unions
   - craft and trade associations
   - professional associations.

3. Brainstorm and record responses to the topic:

   - In what ways would you change the code of ethics for the ___ trade/craft/occupation?

4. Using Resource 26, "Ethical Characteristics of Behaviour":

   a. Rank order each of the ethical characteristics listed.

   b. Describe the positive effect in the workplace when workers demonstrate the ethical behaviour characteristics.

   c. Describe the negative effect in the workplace if one or more workers do not demonstrate each of the ethical characteristics.

5. Review appropriate sections of the *Individual Human Rights Protection Act*. (See Resource 27, "Alberta Human Rights Commission".)

6. Discuss:

   a. What is the relationship between the *Individual Human Rights Protection Act* and work ethics?

   b. How may the *Individual's Rights Protection Act* protect the human rights of the:

      - employed?
      - youth?
      - physically disabled?

2. ETHICAL BEHAVIOUR

Statements of ethics are more than written or verbal statements about behaviour; they guide our relationships with others and the way we approach tasks.

The practice of ethical behaviour is essential to getting and retaining a job or operating a small business, and will usually determine how successful people are in building and maintaining positive relationships.

The characteristics of ethical behaviour include:

- dependability
- enthusiasm
- honesty
- cooperation
- courtesy
- self-control
- hard work
- initiative
- loyalty
- adaptability
- patience
- tact
- reliability
- integrity

Suggested Activities/Community Partnerships

1. Discuss the meaning and use of the word, "respect"; e.g.,
    - respect between employers and employees
    - respect between employees
    - respect for people who may be of different cultures.
2. Using ethical principles, how should the following situations be handled:
    a. Two workers doing identical jobs are paid different wages?

    b. An employer refuses to employ a person on the basis of his or her appearance; e.g., length of hair, style of dress, physical features?

    c. A person with a disability is denied employment in a position for which he or she is qualified?

    d. During an interview, you are asked a question that you know should not have been asked?
3. a. Read Resource 28, "Ethical Characteristics and Behaviour: The Good and the Bad".

    b. Use Resource 29, "Ethical Characteristics of Behaviour: Evaluation Chart", to maintain a monthly evaluation of your ethical behaviour in the school lab and in the workplace.

    c. Which characteristics of your ethical behaviour have improved? Suggest reasons for the improvements.

    d. When participating in an extended community partnership activity (e.g., one week or longer in one workplace), suggest to your supervisor that you would like him or her to evaluate your ethical behaviour as well as other aspects of your performance on the job. Provide the supervisor with a copy of Resource 29, "Ethical Characteristics of Behaviour: Evaluation Chart".

3. WILLINGNESS TO WORK
4. DEPENDABILITY
5. CONCERN FOR OTHERS

Work, and the willingness to work, mean different things to different people. Research indicates that most workers choose a particular career and select and remain in specific jobs because of the job satisfaction they achieve in doing tasks they enjoy.

Ethical behaviour that includes the willingness to work, dependability and concern for others is important to job attainment, job retention and career progress.

The level of an individual's job satisfaction may depend upon:

- wages received
- working conditions and benefits
- time and space to do the job
- opportunities for continuing education
- opportunities for promotion
- job security
- levels of recognition/appreciation
- amount of respect/courtesy shown
- management–worker relationships

These factors are considered when people decide whether or not to take or change jobs.

Suggested Activities/Community Partnerships

1. a. Brainstorm: "How may a person demonstrate:
    - willingness to work?
    - dependability?
    - concern for others?"

   b. Provide examples, related to the course, that would demonstrate these characteristics to others.

2. a. What are your career plans when you graduate from school? A job? Further education/ training? Both?

   b. Whatever your choice, the willingness to work, dependability and concern for others will be important characteristics of your behaviour. Which of these three characteristics is most important? Which is the second most important characteristic? Give reasons for your answers.

   c. Invite community partners to indicate the behaviour characteristics that are most important when:
    - selecting a new employee
    - selecting an employee for promotion.

3. During an extended field experience, observe your fellow workers and keep a log of examples of how different workers exhibit:
    - a willingness to work
    - dependability
    - concern for others.

6. TAKING PRIDE IN WORK
7. FOLLOWING INSTRUCTIONS

A major focus of each 36-level occupational course is to continue to build students' self-esteem based on foundations laid in previous years of the program.

Self-esteem is a feeling of self-respect that includes:

- a sense of security
- a sense of identity or self-concept
- a sense of belonging

- a sense of purpose and direction
- a sense of personal competence.

Teachers are encouraged to focus on the development of these characteristics by:

- reinforcing positive and successful behaviour including the ability to follow instructions (see Suggested Teaching Strategies, "Positive Self-talk: A Self-concept Building Strategy"; "Reinforcing the Positive")
- enriching the classroom/school lab environment (see Suggested Teaching Strategies, "Improving the Instructional Environment")
- using individualized and small group instruction
- integrating generic skills into practical learning activities
- encouraging students to seek advice from peers, the teacher, community partners and others by reinforcing the value of each question asked by students
- reinforcing through community partnership activities, the value and transferability of the concepts, skills and attitudes they are developing in each of their courses
- encouraging students to think critically in order to solve problems
- fostering peer support systems within the class and the school.

Suggested Activities/Community Partnerships

1. a. Interview two workers in related occupations about their attitude concerning pride and satisfaction in their work. Share your findings with classmates.

   b. What are the main reasons for workers' feeling:

   - pride in their work?
   - lack of satisfaction in their work?

2. a. Select two advertisements from a newspaper or magazine and two advertisements from television that show people at work.

   b. Describe what each advertisement indicates about work, pride in work and job satisfaction.

3. Use a variety of self-evaluation charts to maintain an ongoing record of progress and achievement. (See examples in 36-level student workbooks.)

4. a. Secure a mentor (i.e., a community partner) and work with the mentor to design, develop and produce a product or service.

   b. Have students display the product produced to offer the new service to community partners in the school and the community.

5. Consult with classmates on the appropriateness of using various forms of recognition to acknowledge peer achievements; e.g.,

   - student of the week or month
   - best product or service
   - best attendance
   - highest productivity
   - best maintained work area.

   (Note: Posters, plaques or class produced products may be used to acknowledge exemplary student performance in many contexts.)

B. PLANNING AND ORGANIZATION

Planning and organizational skills relate to the ability to group and arrange people and/or materials so that, together, they contribute to the efficient and effective operation of a business or an industry.

Students who develop effective planning and organizational skills are better able to seek, attain and retain employment.

The concepts, skills and attitudes related to planning and organization developed in this unit include:

1. Develops a complex task plan.
2. Follows a complex task plan.
3. Implements a complex task plan.

1. DEVELOPING A COMPLEX TASK PLAN
2. FOLLOWING A COMPLEX TASK PLAN
3. IMPLEMENTING A COMPLEX TASK PLAN

Planning is a process that involves:

- identifying the job to be done
- identifying the components of the job
- putting the job components in usable order
- seeing that the job is completed to a given set of standards.

Because many tasks in occupational courses can be complex, it is necessary for students to understand and to practise each step of the planning process. As students' confidence and competence increases, they should be encouraged to undertake more complex tasks.

When developing the concepts related to planning and organizing, encourage students, individually or in small groups, to identify a project or task they would like to work on and to work through each stage of the planning, organization, implementation and evaluation processes.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow:*

    - Chapter 12, "The Value of Planning" (pages 185–186).

2. a. Participate in a community partnership that enables you to observe or participate in what you consider to be a complex task.

    b. When appropriate, record details of the task; e.g.,

    - task description/name
    - equipment, tools and supplies used
    - steps in the procedure
    - evaluation of the completed task.

c. Arrange the information you record into a job sheet or flow chart.

The job sheet or flow chart should contain the information needed to complete the complex task.

3. a. Working either as a class or as a member of a small group, develop a project or task plan for an activity you wish to complete (use Resource 30, "Project/Task Plan", as a guide). You may wish to invite a community partner to act as a member of the project team. (Note: The community partner may be asked to participate in identifying the project or task to be undertaken, and to continue acting as a mentor during the planning, implementation and evaluation stages of the project.)

b. As you develop the plan, consider the following:

- are the needed equipment, tools and supplies readily available?
- approximately how much time will it take to produce a finished product?
- is the cost affordable?

c. Implement the plan and produce one or more products or services.

d. Evaluate the product or service. Some or all of these factors may apply:

- does it look like the original sketch?
- does it conform to specifications; e.g., size, colour, weight, proportions?
- what did it cost to make? Was the finished product for service completed within the budget?
- can it be used for the stated purpose?
- would you purchase this product or service? Would others?

4. Brainstorm:

- What tasks or activities that you commonly perform require planning and organizing?
- What are the possible consequences of undertaking a task without proper planning and organizing?
- What are the advantages of effective planning and organizing to employees? To employers?

C. TIME MANAGEMENT

In business and industry, time management refers to how much work can be performed in a given number of hours, days, weeks, months or years. In many occupations, workers are expected to be at their workplace by a specified time, take breaks and lunch at specified times, and remain at work for a specified time. Failure to conform to time standards may result in loss of pay, job or business failure.

Effective use of time may affect:

- **the job search process**
- **job retention**
- **time on task**
- **wages earned**
- **prospects for promotion**
- **success as an entrepreneur.**

The concepts, skills and attitudes related to time management developed in this unit include:

1. Demonstrates time–task skills.
2. Meets task deadlines.

1. TIME–TASK SKILLS
2. TASK DEADLINES

Time-on-task refers to the amount of time an employee devotes to the tasks he or she is expected to complete in a given period of time; e.g., hour, day, week, month. Employees who focus their attention on assigned tasks are considered to be productive and are sought after by employers.

Productive employees/employers:

- follow workplace rules and instructions
- cooperate with others
- concentrate on completing assigned tasks within given time lines
- are dependable; i.e., they can be relied upon to be punctual and to do their best.

Teachers are encouraged to:

- establish attendance and punctuality expectations early in the course
- specify possible consequences of poor attendance and tardiness
- provide a statement of expectations and the consequences of success and failure to each student
- be consistent in applying consequences
- be understanding and flexible when establishing expectations and consequences
- reinforce positive time–task skills.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow:*
    - Chapter 2, "Your Time" (pages 21–22)
    - Chapter 8, "Productive Workers Help Economic Growth" (pages 124–125)
    - Chapter 20, "The Value of Planning" (pages 185–186).

2. Time management is handled in different ways in the workplace. Based on your experiences (e.g., community partnerships, part-time jobs, volunteer activities) list the ways in which time-on-task is organized by employees and by employers.

3. a. As you progressed in the 16- and 26-level occupational courses, your ability to complete similar tasks in shorter times improved. Use Resource 31, "Time Grid" to chart your increasing efficiency in the 36-level occupational course.

    b. Compare the time it took to complete similar tasks at the beginning, middle and end of the course.

    c. Does the expression, "Practice Makes Perfect" still apply? Explain your answer.

4. Resource 32, "Time Card" may be copied and used to record the amount of time spent at a part-time job or other activities. It may also be used to calculate earnings based on hourly rates of pay.

D. TASK MANAGEMENT

Task management, like time management, is a component of the planning process. Knowing what to do, how to go about it, and then doing it are important skills in all occupations.

The ability to stay on task is a learned and complex skill. Most people do their best work when the work they are asked to do is meaningful to them.

Work tends to be meaningful when a person has:

a. knowledge related to the work, including:

- what has to be done
- how it has to be done
- where it has to be done
- who wants the task done
- how the completed product/task will be evaluated.

b. a positive attitude toward work, including:

- interest in the work
- willingness to learn.

c. productive work habits, including:

- safe use practices
- personal and public hygiene practices
- respect for self and others
- positive work ethic
- attention to task.

Both time and task management concepts, skills and attitudes should be:

- taught as integral components of each occupational course
- a major component for evaluation in each occupational course
- reinforced through field experiences and other forms of community partnerships.

The concepts, skills and attitudes related to task management developed in this section include:

1. Works to specifications.
2. Uses equipment, tools and supplies correctly.
3. Conserves supplies.
4. Cleans work area when task is completed.
5. Demonstrates the ability to provide proper service.

1. WORK SPECIFICATIONS

In most occupations, workers are expected to conform to work specifications. Specifications ("Specs.") are usually detailed descriptions of the dimensions, materials, etc., for building a product or performing a service.

Suggested Activities/Community Partnerships

1. a. While participating in a variety of field experience activities, identify and record the work specifications used in related occupations/tasks.

   b. What is the meaning of the word 'tolerance' when used in the context of work specifications? Discuss the meaning of the word with community partners.

2. Discuss:

   - Why is it important for each person to use the same specifications when performing similar tasks?
   - When may it be appropriate for people to use different specifications when performing similar tasks?
   - What is the relationship between work specifications and work standards?

3. Invite community partners to describe examples of work specifications in related occupations.

2. EQUIPMENT, TOOLS AND SUPPLY USAGE
3. SUPPLY CONSERVATION
4. WORK AREA CLEANLINESS

In each 36-level occupational course, students are encouraged to become more proficient in handling equipment, tools and supplies, conserving supplies and maintaining a sanitary and safe work area. The work skills (i.e., concepts, skills and attitudes) related to each occupational course are outlined in the:

- *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide*, Scope and Sequence charts
- profile contained in the student workbook available for each occupational course.

Suggested Activities/Community Partnerships

1. What abilities do you need to obtain and retain employment in related occupations?

   Based on your experiences in the workplace and in the school lab:

   a. list the equipment and tools you should be able to use properly.

   b. list the supplies that you must know how to properly handle.

   c. prepare a checklist of tasks that must be performed in order to maintain a safe and sanitary work area.

   d. share your lists with classmates. Compare contents.

2. Review *Working: Today and Tomorrow:*

   - Chapter 8, "Working with Others" and "Productive Workers Help Economic Growth" (pages 124–125)
   - Chapter 10, "Getting Ahead in Your Job" (pages 153–155).

5. THE PRACTICE OF SERVICE

Service is a component of most occupations. Each of the eight occupational clusters and twenty occupational courses that comprise the IOP occupational component contains occupations in which the concepts, skills and attitudes related to service may be learned.

The ability to provide effective service is a learned activity that includes two dimensions:

- Personal dimension — refers to the concepts, skills and attitudes communicated to customers by the service person, such as friendliness, genuine interest in customer needs, tact, knowledge about the product or service being offered, helpfulness.
- Procedural dimension — refers to the concepts, skills and attitudes used: when preparing to provide a service, during the service, and after-sales service. Skills in this dimension include:
  - safe use practices
  - efficiency
  - proper use of equipment, tools and supplies
  - following procedures
  - consistency
  - organization.

Suggested Activities/Community Partnerships

1. a. Read *Working: Today and Tomorrow:*

   - Chapter 5, "What Business Does" (pages 64–65)
   - Appendix, "Service Occupations" (page 216).

   b. What other occupations identified in the Appendix (pages 191–228) include a service component?

2. People's ideas as to what is and what is not "quality service" change over time.

   a. Visit three community partners and observe the types and quality of service(s) provided. Use a copy of Resource 33, "Dimensions of Service" to record your observations and impressions of the two dimensions of service.

   b. Based on your observations and impressions, how would you improve the quality of service you observed in the:

   - personal dimension?
   - procedural dimension?

3. Using Resource 34, "Survey of Service" survey twenty people in the community and ask them: What does "quality service" mean to you?

4. Imagine that you had just started a small business in a related occupation. What would you do to ensure that people using your business felt that they received quality service? Be specific in your answers.

E. WORK STANDARDS

Work standards are the quality, safety and sanitation checks that are used by business and industry to ensure efficient and effective operations. Work standards are usually established by people representing the following agencies:

- governments; i.e., federal, provincial, municipal
- labour unions
- professional associations
- business and industry associations
- individual owners/operators of businesses.

Students need to appreciate the purpose of work standards and be able to work to acceptable standards in order to attain and retain employment.

Quality standards include:

- produce quality; e.g., saleability of the goods or services produced
- process quality; e.g., organizational skills, service, salesmanship.

Product Quality Plus Process Quality Equals Profit

Safety standards include:

- safe use practices; e.g., equipment, tools and supplies
- work area safety; e.g., control of noise, air, waste pollution, fire and accident safety procedures
- safe storage and handling practices; e.g., control of hazardous products and wastes.

Sanitation standards include:

- personal hygiene
- public hygiene.

Proper adherence to good work standards will usually result in safe and secure working conditions, satisfied customers and profit for the business.

The concepts, skills and attitudes related to work standards developed in this section include:

1. Works to specified standards
2. Demonstrates initiative.

1. WORK STANDARDS

Work standards are used as guidelines and to control the way employers and employees behave in the workplace. These standards include:

- quality standards (process quality and product quality)
- safety standards
- sanitation standards
- employment standards.

Suggested Activities/Community Partnerships

1. a. Read *Working: Today and Tomorrow:*

   - Chapter 8, "Main Points" (page 125)
   - Chapter 11, "Why Accidents Happen" (pages 164–170)
   - Chapter 12, "Decisions About Working" (pages 180–182)
   - Appendix (pages 191–228). Select the appropriate section(s).

   b. After reading the "Appendix" carry out the following activities:

   - Discuss: "In which occupational cluster do you intend to start your career?"
   - Visit workplaces related to this occupational cluster and identify the work standards that are commonly followed.
   - Record the work standards that you believe are most important. (See Resource 35, "Work Standards".) Give two reasons why each work standard you list is used in the workplace.

2. Obtain the latest copy of the brochure, Employment Standards Guide, Province of Alberta. What does it say with regard to the following items:

   - minimum wage
   - hours of work and overtime
   - hours of rest
   - vacation and vacation pay
   - termination of employment.

3. Brainstorm:

   a. What effect may a lack of concern about or a failure to follow work standards have on:

   - quality?
   - customers?
   - profits?

   b. If you operated a small business in a related occupation, what work standards would you:

   - have to meet; e.g., government regulations, labour union agreements?
   - like to meet?

4. How would you deal with the following situations? (Demonstrate your answers by role playing each situation.)

   - You believe that it is possible to improve the standard of service provided in your place of work.
   - A fellow worker is not working to the established standards.
   - You are told by your supervisor that your performance is not up to standard.
   - Without consulting with workmates, you decide to improve the way a task is performed.

5. a. Discuss: "What is the purpose of the Employment Standards Code?"

   b. Visit a local workplace and enquire where the summary of the Employment Standards Code is posted. Read the summary and make a chart to show the rights and obligations of employees and employers.

e.g.,

Employment Standards Code Summary of Employee's and Employer's Rights and Responsibilities		
Right/Responsibility	Employees	Employers
Education/ Communication		
Minimum Wages		
Hours of Work		

c. Why must this information "be posted in an area accessible to employees"?

d. Invite a representative from Alberta Labour, Employment Standards Branch, to discuss the Employment Standards Code and its effect on employees, employers, working conditions, etc.

2. INITIATIVE

According to the Gage Canadian Dictionary, initiative is defined as:

- "the active part in taking the first steps in any undertaking"
- "the readiness and ability to be the one to start something".

An example given is that "a good leader must have initiative".

Students should be encouraged to appreciate that demonstrating initiative is a desirable personal trait in many occupations and is a common personal trait among entrepreneurs.

Suggested Activities/Community Partnerships

1. Brainstorm:

   a. In what ways have you demonstrated initiative:

      - at home?
      - in the school?
      - in the workplace?

   b. What are some of the ways in which you may demonstrate initiative in related occupations?

2. Discuss:

   a. Is there a difference between taking initiatives and taking risks? What are the differences, if any?

   b. Are there occupation-related tasks in which taking initiative might be hazardous to self or others? Explain your answers.

3. Invite community partners to discuss the desirability of demonstrating initiative in related occupations.

4. While involved in a field experience, identify and record examples of people in the workplace demonstrating initiative. Share your examples with the rest of the class.

DESIRABLE PERSONAL CHARACTERISTICS

The following statement was passed by order of the Minister and indicates the role that schools play in developing desirable personal characteristics among children of school age.

Children inhabit schools for a significant portion of their lives. Each day, in their relationship with fellow students, teachers and other adults who are in the school, children are exposed to a complex combination of influences, some deliberate and others incidental. In Canada, the common pattern of attitudes derives from many sources, cultural, religious, ethnic and legal. Public schools exist within this culture and it is from this culture that the schools' dominant values emerge.

The school, as the site of a child's formal education, is not the sole or even dominant determiner of student attitudes. Other important sources of influence include the home, the church, the media, and the community. Educators alone cannot, and must not, assume the responsibility for the moral, ethical and spiritual development of their students. They do, however, play a significant role in support of other institutions. The actions of teachers and the activities that take place in schools contribute in a major way to the formation of attitudes.

Parents and other groups in society clearly expect teachers to encourage the growth of certain positive attitudes in students. These attitudes are thought of as being the prerequisites to the development of essential personal characteristics. For the guidance of all, the following list has been prepared. The list is not a definitive one, nor are the items ranked, but, rather, the list is a compilation of the more important attributes that schools ought to foster.

The Alberta community lives with a conviction that human beings are unique and are uniquely related to their world. Generally, but not universally, this expresses itself spiritually, through the belief in a Supreme Being (e.g., God). Ethical/moral characteristics, intellectual characteristics, and social/personal characteristics must be treated in a way that recognizes this reality and respects the positive contribution of this belief to our community.

1. Ethical/Moral Characteristics

Respectful – has respect for the opinions and rights of others, and for property.

Responsible – accepts responsibility for own actions; discharges duties in a satisfactory manner.

Fair/just – behaves in an open, consistent and equitable manner.

Tolerant – is sensitive to other points of view, but able to reject extreme or unethical positions; free from undue bias and prejudice.

Honest – is truthful, sincere, possessing integrity; free from fraud or deception.

Kind – is generous, compassionate, understanding, considerate.

Forgiving – is conciliatory, excusing; ceases to feel resentment toward someone.

Committed to democratic ideals – displays behaviour consistent with the principles inherent in the social, legal and political institutions of this country.

Loyal – is dependable, faithful; devoted to friends, family and country.

2. Intellectual Characteristics

Open-minded – delays judgments until evidence is considered, and listens to other points of view.

Thinks critically – analyzes the pros and cons; explores for and considers alternatives before reaching a decision.

Intellectually curious – is inquisitive, inventive, self-initiated; searches for knowledge.

Creative – expresses self in an original but constructive manner; seeks new solutions to problems and issues.

Pursues excellence – has internalized the need for doing the best in every field of endeavour.

Appreciative – recognizes aesthetic values; appreciates intellectual accomplishments and the power of human strivings.

3. Social/Personal Characteristics

Cooperative – works with others to achieve common aims.

Accepting – is willing to accept others as equals.

Conserving – behaves responsibly toward the environment and the resources therein.

Industrious – applies self diligently, without supervision.

Possesses a strong sense of self-worth – is confident and self-reliant; believes in own ability and worth.

Persevering – pursues goals in spite of obstacles.

Prompt – is punctual; completes assigned tasks on time.

Neat – organizes work in an orderly manner; pays attention to personal appearance.

Attentive – is alert and observant; listens carefully.

Unselfish – is charitable, dedicated to humanitarian principles.

Mentally and physically fit – possesses a healthy, sound attitude toward life; seeks and maintains an optimum level of bodily health.

From *Guide to Education: Senior High School Handbook*, 1992–93 (pages 6–8).

ETHICAL CHARACTERISTICS OF BEHAVIOUR

Beside each characteristic of ethical behaviour:

a. Rank order each characteristic in the context of the related occupation; e.g., write "1" beside the most important characteristic, "2" beside the next most important characteristic, and so on.

b. Describe the positive effect in the workplace when workers demonstrate each characteristic.

c. Describe the negative effect in the workplace when workers fail to demonstrate each characteristic.

Ethical Characteristic	Rank Order	Effect in the Workplace	
		Positive	Negative
Dependability			
Enthusiasm			
Honesty			
Cooperation			
Courtesy			
Self-control			
Hard work			
Initiative			
Loyalty			
Adaptability			
Patience			
Tact			
Reliability			
Integrity			

ALBERTA HUMAN RIGHTS COMMISSION

PROTECTING HUMAN RIGHTS

There are certain rights which we as a society consider so fundamental to human dignity that they deserve special protection under the law.

In Alberta these **human rights** are protected by the **Individual's Rights Protection Act (IRPA)**. The IRPA is Alberta's anti-discrimination legislation and it is administered by the **Alberta Human Rights Commission**.

INDIVIDUAL'S RIGHTS PROTECTION ACT

The Individual's Rights Protection Act (IRPA) was passed in 1972 by the Alberta Legislative Assembly and was amended in September 1980 and again in June 1985. The IRPA bestows on the Commission a mandate to educate the public about the provisions of the Act, the operations of the Commission and human rights issues in general, and to investigate complaints of alleged discrimination under the Act.

Discrimination

The Individual's Rights Protection Act is not designed to control prejudice – what people think – but to prohibit discrimination – what people do.

Discrimination may be defined as . . . "being treated differently because you belong to a particular group or class of people, rather than being judged on your own merit."

The IRPA protects Albertans from acts of discrimination in employment, tenancy, and public accommodation and services, as well as in signs and notices published or displayed before the public, and in applications and advertisements regarding employment. It is a contravention of the IRPA to discriminate against an individual on the basis of race, religious beliefs, colour, sex, physical disability, ancestry and place of origin. In employment only, age (18 years and over), marital status, equal pay and pregnancy (when employed) are also protected grounds. Sexual harassment is considered a form of sex discrimination and is prohibited by the Act.

Aim of the Act

The aim of the Act is to give everyone in Alberta an equal opportunity, free from discrimination, to earn a living, have a place to live and to enjoy public services and accommodations. The IRPA is not a criminal code. The Commission does not look for "guilt" or "innocence". It does not have the power to order an employer, landlord or service provider to pay a fine or agree to a settlement.

Complaints

When the Commission receives a complaint alleging an act of discrimination, human rights officers first determine whether the Commission has jurisdiction and whether there are "reasonable grounds" to believe discrimination has occurred.

When it appears that the IRPA has been contravened, the complainant will be requested to sign a complaint form before the Commission can investigate. The respondent is notified of the complaint before any further action is taken.

Third party complaints may also be made under some circumstances.

Retaliation

The IRPA provides protection against retaliation for any individual making a complaint. The Act specifically prohibits reprisals (intimidation, coercion, dismissal, eviction and/or threat of penalty) against any person who has made a complaint or co-operated in an investigation under the Act.

Investigation

Commission investigations are objective, impartial and confidential. Respondents and complainants are given an equal opportunity to present their respective positions.

The Commission will dismiss a complaint at any stage of the proceedings, if, in its opinion, the complaint is without merit.

Settlement

If it is determined that the IRPA has been contravened, Commission officers attempt to negotiate a settlement. Because each case is unique, negotiated settlements can vary from letters of apology to compensation for lost wages.

Neither Commission staff nor the Commission can order either of the parties involved to accept a settlement. The IRPA gives the Commission the responsibility of attempting to negotiate settlements which lead to the satisfactory resolution of complaints. Where discrimination has occurred against an individual, the Commission attempts to negotiate a remedy that will, to the greatest extent possible, restore that individual to the same circumstances that existed before the act of discrimination took place.

Board of Inquiry

When a settlement cannot be reached, the Commission may direct the Minister of Labour to appoint a board of inquiry to hear the case. The board of inquiry is an independent, quasi-judicial body. Its decisions are binding but may be appealed to the courts.

Education

In addition to dealing with complaints under the Act, the Alberta Human Rights Commission is also responsible for educating the public about the provisions of the Act and about human rights issues in general. With this objective in mind, the Commission is heavily involved in developing and conducting workshops and information sessions for schools, businesses, unions and special interest groups, as well as producing a variety of information material for the public.

Education officers, employed by the Commission, conduct workshops and seminars, make public presentations, and develop resource and curriculum material aimed at raising public awareness of human rights principles and legislation.

Workshops cover a variety of topics including equal pay, mandatory retirement, pregnancy, appearance and dress codes, physical disabilities and sexual harassment.

Workshops, seminars and public presentations can be tailored to meet individual needs and are available free of charge.

The Commission believes it is through education that increased public understanding and acceptance will be attained.

ALBERTA HUMAN RIGHTS COMMISSION

The Alberta Human Rights Commission was established in 1973. It is an autonomous body composed of seven members who are appointed by the Lieutenant-Governor in Council to represent the public at large. The Commission is responsible for the administration of the Individual's Rights Protection Act and reports to the Minister of Labour.

The Commission employs a full-time staff and has its head office in Edmonton. There are two regional offices, one in Calgary serving the city of Red Deer and area south, and one in Edmonton, serving the area north of Red Deer. It is through these offices that the majority of contacts between the public and the Commission staff occurs.

The Commission meets every month, alternating between Calgary and Edmonton. On occasion meetings are held in other parts of the province. A portion of some meetings is opened to the public and the media, and where appropriate the Commission will release details of settled cases. These open public meetings enable groups and individuals to discuss matters of concern or mutual interest. Open meetings are announced in advance and members of the public are welcome to attend. Confidential sessions are used to formulate policies, review complaints and discuss issues affecting the Act.

The Commission welcomes presentations from groups and individuals on matters relative to human rights policies and legislation.

HUMAN RIGHTS AND YOU

The number of complaints handled by the Alberta Human Rights Commission suggests a growth in Alberta's awareness of the devastating effects of human rights abuses. It reflects a new willingness on the part of Albertans to speak out against discrimination in all its forms in a way they might not have had the confidence to do two decades ago.

The sound reasoning behind the IRPA will benefit Albertans only to the extent that the Commission can help them understand what the legislation is trying to accomplish. Teaching people how to use the law to help themselves is part of the Commission's mandate. Legislation cannot automatically eradicate discrimination. However, it can create the kind of awareness that is the key to removing barriers created by discrimination.

Albertans are turning more and more to the Human Rights Commission as a resource against discrimination. If you believe you have been discriminated against and cannot resolve the situation informally, give us a call in confidence and talk it over.

Alberta Human Rights Commission

801 Kensington Place
10011 – 109 Street
Edmonton, Alberta
T5J 3S8
(403) 427–7661

Dorchester Square
1333 – 8 Street SW
Calgary, Alberta
T2R 1M6
(403) 297–6571

Outside Edmonton and Calgary consult your local AGT directory under Government of Alberta for toll-free access.

PROTECTED AREAS UNDER THE INDIVIDUAL'S RIGHTS PROTECTION ACT (IRPA)

It is a contravention of the IRPA to discriminate against individuals in the following protected areas:

Employment

No employer or person acting on behalf of any employer can deny employment, discriminate in the terms and conditions of employment, or refuse to continue to employ any person because of the race, religious beliefs, colour, sex, physical disability, marital status, age, ancestry or place of origin of that person.

Note: These provisions do not apply to individuals working in a private home, or working on a farm and living in the private home of the farmer.

Job Advertisements, Applications and Interviews

The IRPA prohibits the use or circulation of any form of application for employment, or the publishing of any advertisement in connection with employment or prospective employment that expresses either directly or indirectly any limitation, specification or preference as to the race, religious beliefs, colour, sex, physical disability, age, ancestry or place of origin of any person; or that requires an applicant to give any information, either written or oral, concerning their race, religious beliefs, colour, sex, physical disability, ancestry or place of origin.

Membership in Trade Unions, Employers' Organizations or Occupational Associations

The IRPA prohibits trade unions, employers' organizations or occupational associations from excluding any person from membership, expelling or suspending any member, or discriminating against any person or member because of the race, religious beliefs, colour, sex, physical disability, marital status, age, ancestry or place of origin of that person or member.

Tenancy

Under the Act no individual can deny to any person or class of persons the right to occupy as a tenant any commercial unit or self-contained dwelling unit that is advertised or otherwise represented as being available for occupancy by a tenant; or discriminate against any person or class of persons in the terms or conditions of tenancy because of the race, religious beliefs, colour, sex, physical disability, ancestry or place of origin of that person or class of persons.

Public Services and Accommodation

Under the Act no individual can deny to, or discriminate against, any person or class of persons with respect to any accommodation, services or facilities customarily available to the public, because of the race, religious beliefs, colour, sex, physical disability, ancestry or place of origin of that person or class of persons.

Signs and Notices

The IRPA prohibits the publishing or displaying before the public of any notice, sign, symbol or emblem that indicates discrimination or an intention to discriminate against any person or class of persons for any purpose because of the race, religious beliefs, colour, sex, physical disability, age, ancestry or place of origin of that person or class of persons.

Note: The provisions of this section of the Act are not intended to interfere with the free expression of opinion on any subject, and do not apply to non-profit organizations, private clubs or facilities customarily used by one sex.

If you require more information on "Protected Areas", please call the Commission at:

427-7661 (Edmonton)	or	297-6571 (Calgary)

Outside Edmonton and Calgary consult your local AGT directory under Government of Alberta for toll-free access.

YOUTH

The Individual's Rights Protection Act (IRPA) prohibits discrimination because of race, religious beliefs, colour, sex, physical disability, ancestry and place of origin in the areas of:

- employment, job advertising, job applications, and interviews
- tenancy
- services customarily available to the public
- signs and notices published or displayed before the public
- membership in trade unions, employers' organizations or occupational associations.

Age (18 years and over), marital status, equal pay for similar work, and pregnancy (when employed) are also protected grounds but only in the area of employment.

On the Job

Protection in employment on the basis of age is limited to those 18 years and older. That is, the employer has the right to choose not to hire a person younger than 18 because of his or her age. The employer may not, however, deny employment to any person because of race, religious beliefs or any of the other grounds protected under the IRPA. Children and youth enjoy the same protection on these grounds as adults do.

At School

School is considered a service customarily available to the public and therefore comes within the jurisdiction of the IRPA. No student may be treated differently at school because of race, religious beliefs, colour, sex, physical disability, ancestry or place of origin.

Sexual harassment is considered discrimination on the basis of sex. If someone at school, an employer, service provider or landlord, is making unwanted sexual advances, unwanted requests for sexual favours, or subjecting you to unwanted verbal or physical conduct of a sexual nature, you can contact the Alberta Human Rights Commission for help.

Services

Sometimes people operating stores or restaurants, or providing other services, may make it a policy to bar students or youth. They have the right to refuse service to anyone as long as the refusal is based on reasons other than race, religious beliefs, colour, sex, physical disability, ancestry or place of origin.

The automobile insurance industry is a special case. Young men are charged more for auto insurance than are young women. Insurance rates are based on a number of criteria, including sex and age. In Alberta, the insurance industry has been granted a temporary exemption from the IRPA and is in the process of reviewing the way in which insurance rates are determined.

NOTE: Any complaint filed under the IRPA must be lodged with the Alberta Human Rights Commission within six months of the alleged incident. Failure to do so results in the complaint being out of time and the Commission is then no longer empowered to investigate.

If you require more information on "Youth" please call the Commission at:

427-7661 (Edmonton)	or	297-6571 (Calgary)

Outside Edmonton and Calgary consult your local AGT directory under Government of Alberta for toll free access.

BEST COPY AVAILABLE

APPEARANCE/DRESS CODES

Employers have the right to establish the appearance, grooming and dress standards they believe necessary for the safe or effective conduct of a business. An employer may prescribe different standards of dress for male and female employees.

The Alberta Human Rights Commission recommends that employers review their practices to ensure their standards are not discriminatory, that is:

- Appearance or grooming standards or dress codes are reasonable, not arbitrary, and in keeping with societal mores.
- Standards or codes are not used as a pretext for the exclusion from employment or adverse treatment in employment of any person on any grounds of discrimination as set out in the Individual's Rights Protection Act.
- Codes and standards are limited to characteristics that the person affected can change.

Appearance and Grooming

Employers may establish reasonable appearance and grooming standards to meet such criteria as esthetics, health and safety, unless such standards would interfere with an employee's religious practice.

NOTE: Any complaint filed under the IRPA must be lodged with the Alberta Human Rights Commission within six months of the alleged incident. Failure to do so results in the complaint being out of time and the Commission is then no longer empowered to investigate.

If you require more information on "Appearance/ Dress Codes", please call the Commission at:

427-7661 (Edmonton)	or	297-6571 (Calgary)

Outside Edmonton and Calgary consult your local AGT directory under Government of Alberta for toll-free access.

PHYSICAL DISABILITY

Physical disability is a protected ground under the Individual's Rights Protection Act (IRPA) in the areas of employment, public services, accommodation and tenancy. Any individual who has grounds to believe he or she has been discriminated against because of a physical disability may file a complaint with the Alberta Human Rights Commission.

Definition

Physical disability is defined as ". . . any degree of physical disability, infirmity, malformation or disfigurement that is caused by bodily injury, birth defect or illness and, without limiting the generality of the foregoing, includes epilepsy, paralysis, amputation, lack of physical co-ordination, blindness or visual impediment, deafness or hearing impediment, muteness or speech impediment, and physical reliance on a guide dog, wheelchair or other remedial appliance or device."

A person with a physical disability should be accommodated, where possible, within the environment enjoyed by persons without a physical disability. Each situation is unique and it is necessary to look at the circumstances in each case to determine whether an individual can be reasonably accommodated. This applies whether a person is disabled at the time of hiring, or whether he or she develops a disability after working in a position for some time.

On the Job

Employers are expected to make reasonable efforts to provide access to the workplace and washroom facilities for physically disabled employees. As well as making such physical accommodations, it is often possible for an employer to arrange the workload so that duties within a job description which the physically disabled person cannot perform can be handled by other employees.

For example, a typist in a wheelchair might not be able to file. Another typist could arrange to do the filing for both, while the disabled person compensates by doing a larger portion of the typing. It would be up to the employer in each case to decide whether this type of arrangement is feasible.

Health and Safety

It is not expected that an employer should hire or continue to employ a person whose physical disability increases the probability of health or safety hazards to themselves, other employees and/or the public. It is, however, up to the employer to demonstrate that the individual's impairment endangers the individual, other employees and/or the public.

For example, an individual who is subject to epileptic seizures should not be employed to work on a scaffold. If that person suffered a seizure, his or her life may be endangered as well as the lives of would-be rescuers; also, there is the danger of that person dropping tools and injuring people walking below.

Hiring the Disabled

Applications and job interviews must be handled carefully. Questions about medical conditions, injuries or diseases, kinds of medication taken or workers' compensation claims are not permitted. Any physical requirements of the job, such as heavy lifting, for example, should be clearly outlined in the job description. If a potential employee has the experience and skills for the job, and is the top candidate, he or she should be offered the job contingent on passing a job-related medical examination. A company doctor or any medical practitioner can assess whether the applicant is physically able to perform the tasks outlined in the job description.

The Employer's Responsibilities

Employers concerned about their responsibilities in accommodating physically disabled persons, can call on the Alberta Human Rights Commission for advice. The Commission may also be able to identify other resources which may be able to assist, such as the Association for the Disabled or the Alberta government's Health and Safety Division.

NOTE: Any complaint filed under the IRPA must be lodged with the Alberta Human Rights Commission within six months of the alleged incident. Failure to do so results in the complaint being out of time and the Commission is then no longer empowered to investigate.

For more information on "Physical Disability", contact the Commission at:

427–7661 (Edmonton)	or	297–6571 (Calgary)

Outside Edmonton and Calgary consult your local AGT directory under Government of Alberta for toll-free access.

EQUAL PAY FOR SIMILAR WORK

The Individual's Rights Protection Act (IRPA) requires that employers not discriminate on the basis of sex. Specifically, the Act ensures that men and women working in the same establishment and performing "similar or substantially similar work" must be paid at the same rate. Pay differentials which do exist must be based on factors other than sex.

Two jobs need not be identical, but a high degree of similarity in skill, effort, responsibility and working conditions must be demonstrated. For example, orderlies and nursing aides in the same hospital perform the same work, although in the past the former were men and the latter women.

Job descriptions or classifications should reflect the total character of a job. Different job descriptions for two jobs which are similar or substantially similar will not justify a pay differential between the two if one is held by a man and the other by a woman.

It is also illegal for employers to reduce a rate of pay in order to equalize the rates of pay between males and females. However, employers are entitled to pay employees a rate appropriate to additional related experience, education and merit. Merit increments are permitted, as long as this practice is objective and consistent.

The employer is ultimately responsible for ensuring non-discriminatory employment practices and must ensure that employees are hired, promoted, paid and dismissed according to objective guidelines applied equally to men and women.

NOTE: Any complaint filed under the IRPA must be lodged with the Alberta Human Rights Commission within six months of the alleged incident. Failure to do so results in the complaint being out of time and the Commission is then no longer empowered to investigate.

For more information on "Physical Disability", contact the Commission at:

427–7661 (Edmonton) or 297–6571 (Calgary)

Outside Edmonton and Calgary consult your local AGT directory under Government of Alberta for toll-free access.

COMPLAINANT'S GUIDE

The Individual's Rights Protection Act (IRPA) prohibits discrimination in the areas of:

- employment, job advertising, job applications and interviews
- tenancy
- services customarily available to the public
- signs and notices published or displayed before the public
- membership in trade unions, employers' organizations or occupational associations

because of race, religious beliefs, colour, sex (including sexual harassment), physical disability, ancestry and place of origin.

Age (18 years and over), marital status, equal pay, and pregnancy (when employed), are also protected grounds in the area of employment only.

Filing a Complaint

If you believe you have been discriminated against, you can call the offices of the Alberta Human Rights Commission for help. If you are aware of acts or practices of discrimination against others, you might be able to file a third party complaint on behalf of another individual.

Initially, your complaint will be reviewed by a human rights officer to determine if the Commission has jurisdiction and whether there appears to be reasonable grounds for accepting the complaint.

In certain cases the complaint may be handled informally. An investigating officer might contact the respondent to attempt to resolve the complaint, without the need for a normal complaint being filed and an investigation completed. If a formal complaint is accepted, an investigation will take place.

During the investigation and settlement process it is important to keep the Commission informed of any change in your home address, telephone number or place of employment, or that of witnesses.

Investigation

When you sign a formal complaint your case will be assigned to a human rights officer, trained to investigate impartially and objectively. The officer gathers facts by interviewing witnesses and obtaining records and other relevant documentation.

At any point during the investigation, if it is found that your complaint cannot be substantiated, the human rights officer may recommend that the complaint be dismissed. However, you have the right to appeal a dismissal by writing to the chairman of the Alberta Human Rights Commission.

If it is determined that there is sufficient evidence to substantiate your complaint, an attempt will be made to negotiate a settlement between you and the respondent.

Resolution of the complaint is possible at any point during the course of the investigation.

Settlement

In addition to seeking a remedy for you, the Commission is also concerned about protecting the public from further discriminatory practices.

Settlements can range from an apology by the respondent, to a commitment not to discriminate in the future. In some cases, financial compensation for lost wages or expenses resulting from the act of discrimination may be part of the settlement.

If you refuse to co-operate in an effort to effect a settlement which the Commission feels is reasonable, your complaint may be dismissed.

Board of Inquiry

If your complaint is substantiated but the respondent does not agree to settlement, the Commission can direct the Minister of Labour to appoint a board of inquiry to investigate the complaint.

At a board of inquiry, testimony is given under oath and becomes a matter of public record. Board decisions are binding and enforceable, but can be appealed to the Court of Queen's Bench by either party.

Retaliation

If the respondent retaliates against you because you have filed a complaint, you are protected under the Act. The Commission can pursue a retaliation complaint regardless of the validity of the original complaint. Anyone who offers evidence or information in connection with a complaint is also protected from retaliation.

NOTE: Any complaint filed under the IRPA must be lodged with the Alberta Human Rights Commission within six months of the alleged incident. Failure to do so results in the complaint being out of time and the Commission is then no longer empowered to investigate.

If you require more information on the "Complainant's Guide", please call the Commission at:

427-7661 or 297-6571
(Edmonton) (Calgary)

Outside Edmonton and Calgary consult your local AGT directory under Government of Alberta for toll-free access.

PRE-EMPLOYMENT INQUIRIES

The inquiries given below are the types of questions frequently posed by employers to job candidates. This chart gives some examples of the inquiries which are permitted and those not recommended.

Subject	Permitted Inquiries	Inquiries not Recommended
Sex, Marital Status	Availability for shift work, travel, etc.	Plans for marriage, family, childcare
Race, Colour, Ancestry or Place of Origin	Are you legally permitted to work in Canada?	Place of birth, citizenship status, racial origin, next of kin
Name	Name used in previous employment and/or education, for purposes of reference check	Maiden name, or "christian" name
Military Service	Military service in Canada	Foreign military service; this might indicate place of origin
Languages	Fluency in any language specifically required by a job	Other languages when not required in a specific job
Photographs		Photograph would reveal race, sex, etc.
Clubs or Organizations	Membership in professional clubs or organizations, hobbies or interests which do not reveal sex, race, religious beliefs, ancestry or place of origin	Specific inquiries about club and organization memberships which would indicate race, religious beliefs, ancestry or place of origin
Age	Are you of legal age to work in Alberta?	Specific age over 18, including retirement information
Height and Weight	Describe job duties requiring heavy lifting or other physical job requirements	Minimum/maximum height and weight requirement/ stipulations
Physical Disability	Statement that job offer is contingent upon a satisfactory job-related medical examination	General physical disabilities, limitations, present or previous health problems Workers' Compensation claims
Non-Smoking	An employer may ask if an applicant is a non-smoker or indicate successful applicant will be required to work in a non-smoking environment	Asthmatic or permanent respiratory conditions which may be affected by smoke

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ETHICAL CHARACTERISTICS OF BEHAVIOUR: THE GOOD AND THE BAD

The Good	The Bad
People who are committed: – try to make the company look good – work hard for the organization – do their best – dress appropriately	People who lack commitment: – criticize their organization to outsiders – are concerned mostly about what the organization can do for them
People who are enthusiastic: – are interested in their work – share their ideas – are cheerful – give help to others	People who are unenthusiastic: – do only enough to get by – don't care about the quality of the work – may be uncooperative – are complainers
People who are dependable: – arrive at work on time – finish assigned work on schedule – call when they must miss work due to illness – fulfill commitments – use sick days only for legitimate illness or injury	People who are not dependable: – arrive at work late – do not finish assigned work – miss work without notifying the employer – are often absent from work – make excuses – do not follow through on commitments
People who are honest: – admit their mistakes – express their opinions	People who are dishonest: – take tools or materials for their own use – try to get away with as much as they can
People who are willing to learn: – listen carefully to instructions – ask questions when they do not understand – try new things – learn from their own mistakes	People who are unwilling to learn: – ignore instructions – dislike taking advice
People who are willing to accept criticism: – are open to suggestions made by others – learn from suggestions – use constructive criticism to improve the quality of the work	People who are unwilling to accept criticism: – become angry or sulk when criticized – are not receptive to learning new things – reject suggestions – tend to repeat their mistakes

ETHICAL CHARACTERISTICS OF BEHAVIOUR: EVALUATION CHART

On the last school day of each month, evaluate your ethical behaviour against the characteristics listed below. Compare your evaluation with the evaluation given by your teacher/supervisor.

Key: Excellent = 5
Very Good = 4
Fairly Good = 3
Not So Good = 2
Poor = 1

Ethical Characteristic	Student's and Teacher's/Supervisor's Evaluation																			
	Sept.		Oct.		Nov.		Dec.		Jan.		Feb.		Mar.		Apr.		May		June	
	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T
Dependability																				
Enthusiasm																				
Honesty																				
Cooperation																				
Courtesy																				
Self-control																				
Hard work																				
Initiative																				
Loyalty																				
Adaptability																				
Patience																				
Tact																				
Reliability																				
Integrity																				

Has your ethical behaviour improved during the course? ____________________

In what ways has your ethical behaviour changed the most? Why?

____

____

____

____

____

Student's Signature: ____________________ Teacher's Signature: ____________________

Date: ____________________ Date: ____________________

PROJECT/TASK PLAN

Name of Project/Task: ________________________

Project/Task Force: ________________________

1. Equipment, tools and supplies required

Sketch or photograph of product/task to be produced/completed

2. Procedures
(Note: Include details of special safety precautions at each step.)

3. Evaluation
(Indicate how you intend to judge the quality of the finished product.)

(Note: Before attempting to carry out a project/task plan, it must be approved by your teacher/supervisor.)

Student(s): ________________________ Teacher/Supervisor: ________________

TIME GRID

Each time you are assigned a task, record the amount of time it took you to complete it. Compare the time you took to complete a task early in the course with the time taken to complete a similar task later in the course.

Course ____________		Time Taken to Complete Task (hours; quarter-, half- and three-quarter hours)	Hrs./Mins.
Date	Task	0 1 2 3 4 5 6 7 8 9 10 11 12	
e.g., Jan. 5	Take inventory	█	5.5 hrs.

TIME CARD

TIME CARD

EMPLOYEE:

Social Insurance Number:

Week Ending:

MORNING		AFTERNOON		EVENING		HOURS
IN	OUT	IN	OUT	IN	OUT	

	HOURS	RATE	EARNINGS	
REGULAR				
OVERTIME				
TOTALS				

DIMENSIONS OF SERVICE

Course: ______________________ Student: ______________________

Community Partner Observed: ______________________ Date: ______________

Type of Service Offered		Impressions (Was the service good or bad? Why?)
Personal	Procedural	

SURVEY OF SERVICE

Using the following questions as a guide:

- interview twenty people
- record and categorize their responses (design a chart that you will use to record responses)
- summarize your findings
- share and discuss your survey results with classmates
- based on your sharing and discussions, answer questions 4 and 5.

1. Is the quality of service important to you when selecting:
   a. a restaurant?
   b. a supermarket?
   c. a shoe store?

2. Which of the following dimensions of service are important to you:
   a. friendliness of service staff?
   b. helpfulness of service staff?
   c. ability of service staff to answer questions?
   d. ability of service staff to handle equipment and tools?
   e. attitude of service staff?
   f. cleanliness of shop?
   g. appearance of service staff?
   h. efficiency of service staff?

3. Which of these dimensions is:
   a. most important to you?
   b. least important to you?

4. How many people and what percentage of the people interviewed believe that service is important:
   - in restaurants? ____________________ percentage of total ____________________
   - in supermarkets? ____________________ percentage of total ____________________
   - in a shoe store? ____________________ percentage of total ____________________

5. a. Which are the three most important dimensions of service to those interviewed?

   ____

   b. Which are the three least important dimensions of service to those interviewed?

   ____

WORK STANDARDS

Course: ______________________ Student: ______________________

Business/Industry Observed: ______________________ Date: ______________

Work Standards	Reasons (Two for Each Work Standard)
1. QUALITY	
a. Product quality	
●	
●	
●	
b. Process quality	
●	
●	
●	
2. SAFETY	
a. Equipment, tools and supply usage	
●	
●	
●	
b. Storage and handling	
●	
●	
●	
3. SANITATION	
a. Personal hygiene	
●	
●	
●	
b. Public hygiene	
●	
●	
●	

3. COMMUNICATION SKILLS

> "Very simply, communication is a message sent and a message received; ideally these two messages would be identical, but seldom are."[1]

The components of literacy are similar to those that contribute to good communication:

- reading
- speaking
- listening
- writing
- viewing.

Maintaining a good communication system is important in all occupations. Any breakdown in communication can have implications on an employee's/employer's ability to do a job and on the company's ability to reach its objectives. If directions are not fully or clearly given, people may not understand the exact procedures that must be followed or be aware of the specific materials that should be used. In order for work to be done correctly, workers need to seek clarification if they have not understood or are unsure about certain procedures or methods in their work.

In small businesses where the owner/manager may run all aspects of the business, communication is usually informal and mainly by word of mouth. The employees are told their assignments by the owner/manager and report back when the work is done. As companies get bigger and develop separate departments, more information is conveyed in writing. Written communication enables employees and employers to:

- reread instructions/information
- read the information and/or follow the instructions at a convenient time
- share information between a number of people in different locations
- keep a record of information and instructions given and received.

For a company to work effectively, communication, both verbal and non-verbal, should:

- flow in all directions
- be clearly understood by both the sender and the receiver
- be acted upon or responded to as quickly as possible.

The development of effective and appropriate communication skills is a generic skill that is transferable to most life and work situations.

Teachers of students in occupational courses are encouraged to integrate their instructional planning with other teachers and community partners. Through cooperative planning they would:

- provide other teachers with materials they can use to add relevance to communication instruction in the classroom; e.g., vocabulary lists, types of instructions used in the courses, trade magazines
- require students to engage in task-related communications
- encourage student use of libraries and other resource centres in the classroom, school and community
- encourage librarians to obtain related resources and share these with students
- have a visible and accessible in-class resource centre that includes trade magazines, reference journals, work manuals and related print materials.

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1. For permission to reprint copyrighted material, grateful acknowledgement is made to Alberta Agriculture for the excerpts from "*The Communication Tool Kit*", page 4.

The concepts, related skills and attitudes related to communication skills developed in this unit include:

1. Identifies types of communication in local businesses/industries.
2. Demonstrates ability to communicate effectively.
3. Demonstrates effective interview strategies.
4. Uses the telephone correctly.

RESOURCES

STUDENT LEARNING RESOURCES

- Student workbook (1992) available for each 36-level occupational course.
- *Working: Today and Tomorrow.* Canadian Edition. Toronto, Ontario: Irwin Publishing, 1990.

Correlation of Learning Objectives with Student Resource

Concepts, Skills and Attitudes	*Working: Today and Tomorrow*
1. Types of communication	Chapters 1, 8
2. Effective communication	Chapters 8, 10
3. Interview strategies	Chapter 7
4. Telephone techniques	Chapter 7

Specific sections of each chapter are referenced under "Suggested Activities/Community Partnerships".

TEACHING RESOURCES

- Resource 36, "Generic Communication Skills"
- Resource 37, "Non-verbal Forms of Communication Used in the Workplace"
- Resource 38, "Stages of the Interview"
- Resource 39, "Body Language in the Interview"
- Resource 40, "Tips for the Telephone Interview"
- Resource 41, "Using a Business Telephone"
- Resource 42, "Evaluating Phonogenic Abilities"
- Alberta Agriculture, *The Communication Tool Kit* (see *IOP Occupational Component 16-Level Courses Teacher Resource Manual* "Communication Skills")
- Alberta Career Development and Employment publications
- Community partners.

1. FORMS OF COMMUNICATION

The ability to communicate is a generic skill. Employed and self-employed persons need to be able to use a combination of verbal and non-verbal forms of communication in order to function effectively in the workplace.

Communication skills include advising, explaining, interviewing and selling. (A more complete list of communication skills is contained in Resource 36, "Generic Communication Skills".) In addition to the list of generic communication skills, the use of jargon, signs and symbols are commonly used in the workplace.

It is important for entry-level workers to be able to interpret and use appropriate forms of communication in the workplace.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow:*

   - Chapter 1, "Preparing for Change" (pages 12–15)
   - Chapter 8, "Working with Others: Communicating" (pages 114–116).

2. Play "Communication Charades"

   - Resource 36, "Generic Communication Skills" lists thirty forms of communication. Write each of the forms of communication on a separate piece of paper and place the papers in a box or hat.
   - Each student, in turn, randomly picks out one of the pieces, reads it and attempts to communicate the meaning of the word without using the word.

   Students may use role playing, miming, signs, symbols, speech, etc. They must not, of course, utter the word.

3. a. Review the meaning of the following forms of communication:

      - verbal
      - non-verbal
      - symbolic.

   b. Which form(s) of communication are most frequently used in related occupations?

   c. List the forms of communication used on the job, and give examples of how and when each form of communication is used.

4. a. Invite community partners to describe appropriate/inappropriate forms of communication in the workplace.

   b. Role play situations in which you might have to respond or react to communications that are unclear or that you do not understand.

5. Does advertising/marketing play a major role in a related occupation? Describe the advertising/marketing strategies used and their purposes.

2. EFFECTIVE COMMUNICATION

Effective communication can involve sending and receiving any one or a combination of the following:

- facts
- feelings
- thoughts
- impressions
- sensations
- needs
- wishes

Effective communication in the home, in the school, and in the workplace, does not just happen. It is learned through practice.

Forms of communication that may be effective in one setting may be less effective or totally ineffective in another setting (e.g., verbal communications may not be effective in a workplace where heavy equipment is being operated. Signs, symbols and other non-verbal forms of communication may be more effective).

To improve verbal and non-verbal communication skills, students should be encouraged to:

a. ask questions when they have a need for:

  - further information
  - feedback
  - more detail
  - examples
  - clarification.

b. identify both the verbal and non-verbal components of a message.

c. follow verbal and non-verbal instructions. The following strategies are suggested to assist them:

  - post rules, instructions and critical procedures on bulletin boards to serve as an external and continuous memory support
  - promote an atmosphere that is supportive of the student asking and responding to questions from the teacher or peers.

Similarly, teachers can help to develop effective student communication by:

- using questioning strategies that probe for students' understanding of instructions and the ability to transfer instructions into sequenced action
- including the assessment of communication in evaluative strategies
- encouraging students to role play examples of effective/ineffective verbal, non-verbal and mixed communications

  e.g.,
  - facial expressions; e.g., looking eager/bored, miserable/pleased
  - body posture; e.g., slouch/stand up straight
  - body position; e.g., lean forward/lean backward while seated
  - appearances; e.g., comb your hair/look untidy, wear freshly laundered clothes/ wear soiled clothing
  - time management; e.g., arrive early/just in time/late for an interview
  - task management; e.g., submit a badly/clearly written application form; submit a clean/stained assignment.

Suggested Activities/Community Partnerships

1. Review *Working: Today and Tomorrow:*

   - Chapter 8, "Working with Others: Communicating" (page 115)
   - Chapter 10, "Getting Ahead in Your Job" (pages 153–155).

2. a. Select a partner and construct and present to your partner course-/job-/task-related sentences beginning with the following phrases:

   - State in your own words . . .
     - What does it mean to . . . ?
     - What will happen if . . . ?
     - What is the next step?

   b. Respond to similar questions posed by your partner.

3. Design a project, outline the procedure you intend to follow, and present the project design and procedure to the rest of the class. Wherever possible, use visual effects (graphs, flow charts, models) to ensure greater understanding by classmates of what you intend to do and how you intend to do it. (Note: A community partner may be asked to act as your mentor in this and other activities.)

4. Brainstorm to review the various forms of non-verbal communication used to communicate information in workplaces; e.g., signs, symbols, sounds.

5. a. Select two classmates and, working as a group, select and discuss a problem or project about which your group has some strong ideas. Have one member from your group make a presentation (verbal and non-verbal) to the rest of the class, describing:

   - the problem/project
   - the plan
   - the suggested solution.

   b. Working as a group, respond to questions posed by classmates.

   c. Summarize, verbally and later in writing, the feedback received from classmates about your group's presentation.

6. Role play events involving verbal and non-verbal course-related situations; e.g.,

   - taking orders in a restaurant
   - giving directions to a customer
   - dealing with a dissatisfied customer
   - face-to-face selling
   - handling a young child
   - nurturing an elderly person.

7. a. Visit two or more local business/industry operations and observe, record and interpret signs, symbols and other non-verbal communication devices in use. Use Resource 37, "Non-verbal Forms of Communication Used in the Workplace", to record your observations.

   b. Which of the communication devices have you not seen before? Who developed the device; e.g., employee, government agency, safety council? Why was it developed?

3. INTERVIEW STRATEGIES

The job interview requires the use of effective verbal and non-verbal communication skills. Both the employer and the employee have major roles to play in the interview process. For example,

Employer	Employee
1. Seeks to hire the employee who can and will do the job.	1. Considers contracting his or her abilities to the employee.
2. Determines suitability of the candidate: • ability to work with others • ability to handle materials • ability to work with minimum of supervision.	2. Determines suitability of the company: • quality of working conditions • amount of wage/salary • fringe benefits • holiday entitlements • opportunities for further education/training/promotion.
3. Determines if this is the best candidate.	3. Determines if this is the best place to work.

An interview may be broken into three stages:

1. Establishing rapport.
2. Exchanging information.
3. Closing the interview.

(See Resource 38, "Stages of the Interview".)

When answering questions during an interview, keep in mind that the interviewer will tend to look for certain traits in potential employees; e.g.,

- ability and willingness to learn
- enthusiasm
- communication skills
- dependability
- logical thinking/problem-solving skills
- sincerity
- initiative/motivation
- responsibility
- honesty.

Suggested Activities/Community Partnerships

1. Review *Working: Today and Tomorrow*:
    - Chapter 7, "Before, During and After the Interview" (pages 107–110).
2. a. Study Resource 38, "Stages of the Interview" and Resource 39, "Body Language in the Interview".

   b. Role play various interview situations.

   c. Invite community partners to participate in the role playing.

3. Which of the three stages of an interview do you consider the most important? Explain your answer.

4. Discuss the following saying:
"You don't get a second chance to make a first impression."

4. TELEPHONE STRATEGIES

The telephone interview is now a commonly used method of conducting an interview, especially when the person applying for the job lives in another city or province. Communication skills, both verbal and non-verbal, are as important during a telephone interview as they are in a face-to-face interview.

The telephone is one of the most important tools of communication in the home, the school and the workplace. People in business need to communicate regularly with customers, suppliers and other businesses.

The ability to use the telephone correctly is important to job search and job retention processes.

Having access to a telephone is now considered so important that many people install a telephone in their cars, and some people carry a mobile phone with them at all times.

Car phones and mobile phones are relatively expensive; therefore, many people rent "beepers"—a communication device that tells the user that someone is trying to make contact by telephone. At the sound of the "beep", the user goes to the nearest telephone to make contact with the caller.

Suggested Activities/Community Partnerships

1. a. Read *Working: Today and Tomorrow*:
   - Chapter 7, "Applying for Jobs" (pages 103–105).

   b. Study Resource 40, "Tips for the Telephone Interview".

   c. Role play being interviewed and being the interviewer using the telephone.

2. a. Review the procedures for using a business telephone. (See Resource 41, "Using a Business Telephone".)

   b. Practise the procedures indicated.

   c. Use Resource 42, "Evaluating Phonogenic Abilities" to provide feedback to classmates after each role playing activity.

3. Invite community partners to provide additional guidance on how to develop improved phonogenic abilities. Community partners may include representatives from:
   - Alberta Government Telephones
   - Edmonton Telephones
   - local business/industry.

4. Initiate contacts with potential community partners by telephone. Keyboarded or handwritten follow-up letters may then be written and mailed.

5. Working in pairs, present a telephone scenario. Have the rest of the class provide feedback as to the attitude of both the "caller" and the "receiver". You may role play:

   - an impatient caller
   - an irritable receiver
   - a very satisfied customer
   - an angry, unsatisfied customer
   - an emergency call to the fire, police or ambulance authority.

6. The ability to use a business telephone correctly occurs in occupations other than those usually associated with office work. Brainstorm to identify the non-office occupations in which the ability to use a business telephone correctly might be a saleable skill.

GENERIC COMMUNICATION SKILLS

1. The following list of terms are used to describe different ways by which we communicate. Check the list. Do you know what each term means? If not, use the dictionary to define the term.

2. Which of these forms of communication would you use on the job? Indicate these with a check mark and suggest when and why you would use each form of communication.

Form of Communication	Used On the Job	When Used/ Why Used
Advertising		
Advising		
Bargaining		
Debating		
Editing		
Explaining		
Influencing/Persuading		
Informing		
Interpreting		
Interviewing		
Lecturing		
Listening		
Lobbying		
Negotiating		
Politicking		
Promoting		
Reporting		
Selling		
Storytelling		
Summarizing		
Transcribing		
Translating		
Writing		

3. In what other ways might you communicate on the job?

NON-VERBAL FORMS OF COMMUNICATION USED IN THE WORKPLACE

Course: ______________________ Name: ______________________

Visit two or more workplaces and identify and record the forms of non-verbal communication (e.g., signs, symbols) observed. Indicate the purpose of each form recorded by placing a check mark (✓) in the appropriate column.

Workplace visited: ______________________ Date: ______________

Form of Non-verbal Communication (Sketch what you observed)	Purpose				
	Safety	Sanitation	Storage	Hazardous Substance Identification	Other (Specify)

(If more space is needed, use a plain sheet of paper and attach it to this sheet.)

STAGES OF THE INTERVIEW

Knowing how an interview will be conducted can help to make the interview more predictable and less threatening. It's much easier to organize your thoughts as well.

Interviews generally consist of three stages. The first stage, **establishing rapport**, is a critical one. Interviewers generally make irreversible judgments within the first three minutes of the interview. But don't depend on this structure always being followed. Be prepared for some interviewers getting right down to business; they may not have good interviewing skills, or have not allotted much time for "establishing rapport" or "breaking the ice".

Tips for Establishing Rapport

1. Come in smiling, confident, and "up".
2. Introduce yourself; shake hands firmly.
3. Make eye contact.
4. Make small talk about the weather, traffic, etc., to put both of you at ease.
5. Ask for the length of time you'll have for asking questions.
6. Be prepared to talk about yourself as a person.
7. Be aware of your body language and presentation style.
8. Accentuate the positive.

The second stage of the interview, **exchanging information**, focuses on your background and general qualifications. Interviewers are seeking information to assess how well your skills, knowledge and experience meet the requirements for the position. In providing this information, you can take more initiative in responding to the interviewer's questions. Plus, you are seeking more information about the employer to determine whether or not you want to work for that company. So, be sure to ask questions, too.

Tips for Exchanging Information

1. Be prepared to answer standard interview questions.
2. Expand on your skills, knowledge and achievements.
3. Describe your expertise in problem-solving areas that concern the employer.
4. Emphasize what you can contribute to the firm; remember you're marketing yourself.
5. Ask questions about the job and company, based on your research, and what information is necessary for you to decide about the job.
6. Make sure the employer gets all the critical information about you; use your "results" words.
7. Continue to be enthusiastic.

The final stage of the interview, **closing the interview**, consists of the closing comments which "tie the interview together". Information is provided concerning the process for selecting the successful candidate. Your impressions about the particular position upon which the interview focused can be summarized at this point as well.

Tips for Closing the Interview

1. Get the idea across you can be counted on to do a great job.
2. Express a desire to hear from the interviewer soon, and arrange to call back or return; note the date and be sure to respond.
3. If it's evident there isn't any opportunity with the company just now, ask for suggestions or job leads.
4. Thank the interviewer(s) for the time and consideration given.
5. Shake hands, and leave promptly in a positive manner.

Always be aware of how the employer is reacting to you during the interview and if need be, adjust your style.

Anticipation. A key word to success. People who think about what might happen, and then work out solutions to possibilities, often become successful. It's thinking ahead that gets you ahead. So when it comes to your interview — before you go — run through all the situations and questions you imagine might pop up. Then practise answering them. That way, by the time you shake hands with your interviewer, you're in control.

From *The Job Seeker's Handbook*, pages 43–45. Reprinted with the permission of Career Programs and Resources, Alberta Career Development and Employment.

BODY LANGUAGE IN THE INTERVIEW

Generally, over 90% of what we communicate is done without ever opening our mouths. Our body language (mannerisms, gestures, body movements, tone of voice, expressions) is like a neon sign advertising who we are. Since body language plays such a big part in any meeting, it's good to be aware of the many ways you'll be communicating — intentionally or otherwise — your attitude toward the employer.

The position of your body while you're speaking and listening says a lot about how eager you are to work. Slouching or being too laid-back destroys a positive image, so sit up straight or lean forward in your chair. Try to appear calm.

Watch for non-verbal messages from the employer as well. Shrugging shoulders, frowning expressions, hand gestures, and nodding or shaking heads can provide clues that indicate how the interviewer is reacting to you. Pay attention and take note. Check regularly to make sure that you're being understood. If you've just explained in some detail the kind of work you performed in your last job, and you see the interviewer looking confused — STOP — and ask "Is what I've said clear?" or "Would you like me to explain further?"

Be aware of what's happening. If the interviewer appears bored, change gears and show more energy, or take that cue that the interview is near an end.

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TIPS FOR THE TELEPHONE INTERVIEW

1. Be prepared. Plan your call. Be ready with fast, interesting statements of the benefits the employer will have from hiring you.

2. Keep your résumé, answers to anticipated questions, and list of questions to ask in front of you. Have a pen and paper handy to jot down any comments or questions you may have during the interview.

3. Answer questions in short sentences. The only thing the employer has to go on during a telephone interview is your voice. Short sentences are more readily understood than long, rambling explanations. Shorter replies also allow for more interchange between you and the employer. It will keep the interview more lively and interesting.

4. If you're asked something you aren't sure how to answer, repeat the question back to the employer. In restating the question, you will give yourself some extra time to think of an answer. This technique also means you can avoid long silences on the phone. That can be very awkward, and on the telephone even 10 seconds of silence seems to drag on forever.

5. If you've given a particularly complex answer, ask at the end if you've made yourself clear. It will give the employer a chance to clarify any questions he or she may have.

6. Answer questions courteously. Just as in a personal interview, don't drink, smoke or eat while speaking with an employer. Give your undivided attention, and sound relaxed and confident in your presentation.

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USING A BUSINESS TELEPHONE

PHONOGENIC SKILLS

It is important that people who use the telephone for business purposes develop Phonogenic Skills — the ability to communicate pleasantly and positively with others over the telephone.

Basic phonogenic skills include:

- placing the telephone handset directly in line with the lips and about the width of two fingers from the mouthpiece
- speaking in a clear, evenly paced voice. Never shout into the mouthpiece
- being polite and considerate to the other person even though the other person may not always demonstrate phonogenic skills.

Initiating Outgoing Calls

A receptionist or other employee may be asked by an employer or a customer to make a business call on their behalf. The following phonogenic practices should be followed:

a. If you are using a telephone with more than one line, observe the indicator lights. Be certain the line is free before you pick up the handset.

b. Pick up the handset and listen for a dial tone before dialing. If you accidentally pick up a line that is already in use, say "excuse me" and hang up immediately.

c. When the person being called answers the telephone, identify yourself - "Good morning, Ms Sito, this is Michael Brown of the XYZ Company."

d. State the purpose of the call clearly and concisely; e.g., "Mr. Ino would like an appointment to see Ms Marion today. Is this possible?"

e. If the call requires that a message be taken, use a message form to record the information clearly and accurately.

f. Be aware that in business, time is money. When the business of the call is completed, end the call.

Recording Telephone Information

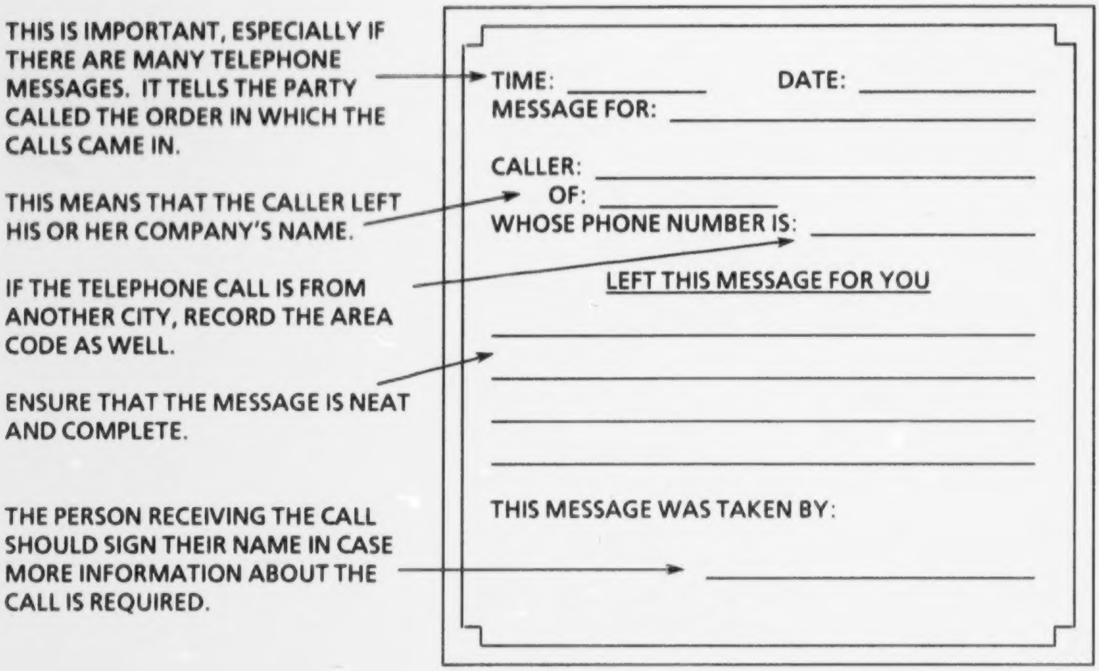
When taking a message over the telephone, use a message pad, and:

a. write quickly and clearly

b. ask the caller to repeat any information you may have missed

c. rewrite telephone messages for clarity and accuracy if necessary. Be careful to spell correctly and to give full and accurate information in the note. Check the telephone number against your first copy

d. be certain that the person called gets the telephone messages *immediately* when he or she is available.



THIS IS IMPORTANT, ESPECIALLY IF THERE ARE MANY TELEPHONE MESSAGES. IT TELLS THE PARTY CALLED THE ORDER IN WHICH THE CALLS CAME IN.

THIS MEANS THAT THE CALLER LEFT HIS OR HER COMPANY'S NAME.

IF THE TELEPHONE CALL IS FROM ANOTHER CITY, RECORD THE AREA CODE AS WELL.

ENSURE THAT THE MESSAGE IS NEAT AND COMPLETE.

THE PERSON RECEIVING THE CALL SHOULD SIGN THEIR NAME IN CASE MORE INFORMATION ABOUT THE CALL IS REQUIRED.

TIME: ____________ DATE: ______________
MESSAGE FOR: ____________________________

CALLER: ________________________________
OF: ______________
WHOSE PHONE NUMBER IS: ______________

LEFT THIS MESSAGE FOR YOU

____
____
____
____

THIS MESSAGE WAS TAKEN BY:

____

ANSWERING THE SCHOOL TELEPHONE

When answering the business telephone, remember:

a. Answer on the first ring if possible.

b. Say: "Good morning. XYZ Company. This is John Smith speaking."

c. Listen carefully to what the other person is saying. Keep a notepad at hand to write the information on and then respond to the caller.

The caller may say something like this:
"Is the manager in?"

d. If the manager is taking calls, then you will say something like this:

"Yes. May I tell him (or her) who's calling, please?"
When the caller tells you his or her name, write it down, then say:
"Thank you. One moment please."
Then inform the manager of the caller's name and put the call through.

e. If your telephone system requires that you hang up your phone when the manager takes the call, then do so as soon as you know that the call has been taken.

f. If the manager is not available to accept an incoming call, then tell the caller:

"I'm sorry, Mrs. Smith, the manager isn't available to take your call at the moment. May I have your name and number and she will call you back as soon as she is free."

Note: Substitute real names for the pretend ones above.

PUTTING A CALLER ON HOLD

If there are several telephone lines coming into a business telephone, many calls may come at the same time. Since only one call can be handled at a time, it will be necessary to ask other callers to wait until the first call has been answered. To do this, waiting callers must be put on "hold".

Different telephone systems have different ways of actually doing that. Encourage students to learn how to work different systems by practising on the school switchboard after school hours. Practise receiving incoming calls and punching the correct buttons in the correct order.

The procedures below are commonly followed when a caller is put on hold:

1. You are speaking with Caller "A" when the second line rings.
   You say to Caller "A":

   > "I have another call coming in. Would you please hold for a moment and I'll get right back to you?"

2. Answer the second call just as if it were the only call being handled, and say . . .

   > "I have a call on another line. Would you mind holding for a moment, please? I will get right back to you."

   Allow time for Caller "B" to assent, then return to Caller "A" after you have placed the second caller on hold.

3. Complete your call with Caller "A" then immediately return to Caller "B".

4. Nobody likes to be put on hold for very long!
   If you cannot complete your business with Caller "A" within 30 seconds, you should not place Caller "B" on hold. Instead you should say to Caller "B":

   > "ABC Company. M__ Jones speaking. I am transferring your call. Please remain on the line."

   or, if you cannot transfer the call and a hold would last more than 30 seconds, you should say:

   > "ABC Company. M__ Jones speaking. I'm on another line at the moment. May I have your name and telephone number and I will return your call in a few minutes, or would you prefer to hold?"

   Sometimes, Caller "B" may be willing to remain on hold for a longer time, if asked very politely to do so. If not, you must return the call as soon as possible. This practice will save callers valuable business time and earn your company their respect. Remember to write down the caller's name and the telephone number!

5. If you transfer Caller "B" to another department or receptionist, be certain that the call has been transferred and answered before returning to Caller "A". Don't lose people on the line.

BEST COPY AVAILABLE

EVALUATING PHONOGENIC ABILITIES

Student's Name: ____________________ Date: ____________________

School/Workplace Situation: ____

VERBAL COMMUNICATION ABILITIES	Exc.	Very Good	Good	Fair	Poor
1. Clarity – Is each word understandable?					
2. Tone – Is there a "smile" in the voice?					
3. Volume – Can the other party hear the communication? – Is he or she deafened by the voice?					
4. Communication – Was the other party told who was speaking?					
NON-VERBAL COMMUNICATION ABILITIES					
1. Pleasantness – Does the speaker seem pleased to be involved in the communication?					
2. Eagerness – Does the speaker seem bored with the job?					
3. Message taking – Are messages taken correctly?					
4. Handling multiple calls – Is the proper procedure followed?					

Areas in need of improvement:

____

____

____

____

____

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4. READING SKILLS

Reading is a component of literacy, and the ability to read is an important component of effective communication.

Each occupational course incorporates occupation-related reading tasks that are designed to:

- improve students' general reading ability
- improve students' functional literacy in one or more occupational cluster
- motivate students to improve their literacy skills by focusing on the concrete, functional use of reading, speaking, listening, writing and viewing in the world of work.

Teachers of students in occupational courses are encouraged to integrate their instructional planning with teachers of English, teacher–librarians and community partners. Through cooperative planning they would:

- provide teachers of English with materials they can use to add relevance to reading instruction in the classroom; e.g., vocabulary lists, types of instructions used in the courses, trade magazines, and so on
- require students to engage in task-related readings
- encourage student use of libraries and other resource centres in the classroom, school and community
- encourage librarians to obtain related resources and share these with students
- have a visible and accessible in-class resource centre that includes trade magazines, reference journals, work manuals and related print materials.

The concepts, skills and attitudes related to reading developed in this unit include:

1. Reads and interprets occupation-related literature.
2. Reads health- and safety-related documents.
3. Reads and interprets employment documents.
4. Uses resource centres.
5. Follows written instructions specific to occupational area.
6. Deals with conflicting instructions.

RESOURCES

STUDENT LEARNING RESOURCES

- Student workbook (1992) available for each 36-level occupational course.
- *Working: Today and Tomorrow.* Canadian Edition. Toronto, Ontario: Irwin Publishing, 1990.

Correlation of Learning Objectives with Student Resource

Concepts, Skills and Attitudes	*Working: Today and Tomorrow*
1. Reading occupation-related literature	Chapters 1, 3, Appendix
2. Reading health and safety documents	Chapter 11
3. Reading employment documents	Chapter 7
4. Following written instructions	Chapter 4
5. Dealing with conflicting instructions	Chapter 4

Specific sections of each chapter are referenced under "Suggested Activities/Community Partnerships".

TEACHING RESOURCES

- Trade/business journals
- Service/shop manuals
- Catalogues
- Government pamphlets/brochures
- Community partners.

1. READING OCCUPATIONAL LITERATURE
2. READING HEALTH AND SAFETY DOCUMENTS
3. READING EMPLOYMENT DOCUMENTS
4. RESOURCE CENTRES

Students enrolled in occupational courses should be encouraged to regularly access and read a variety of literature regularly, including:

- trade/business journals
- service/shop manuals
- catalogues
- videotapes, laser discs
- government pamphlets/booklets related to health, safety and sanitation in the workplace.

Each occupational lab should have a visible and accessible resource centre where related literature is displayed. Students should be encouraged, as frequently as possible, to search for information in the resource area rather than be "given" answers to their questions. Oral and silent reading in class should also be encouraged.

In situations where an in-class resource centre is limited or not feasible:

- ensure that the school library has appropriate resources available; e.g., journals, catalogues, pamphlets
- encourage students to become members of and use the community library services
- help students locate and gain access to other resource centres; e.g., government departments, labour union libraries.

Suggested Activities/Community Partnerships

1. Set up a schedule where one student is responsible weekly/monthly for the lab's resource centre by:

    - maintaining a catalogue of resources
    - cataloguing articles of specific interest
    - acquiring additional resources.

2. Select an article that interests you in a course-related journal, and:

    - read the article
    - summarize the two or three major points in the article and present them to the class
    - answer questions on the topic you presented.

    (See Suggested Teaching Strategies, "RAP: A Comprehension Strategy", "SQ3R: A Chapter Attack Strategy" and "LEEP, CHECK: Oral Presentation Strategies".)

3. Review *Working: Today and Tomorrow:*

    - Chapter 1, "The Changing Nature of Work" (pages 1–15)
    - Chapter 7, "Getting the Job You Want" (pages 96–110).

5. FOLLOWING WRITTEN INSTRUCTIONS
6. CONFLICTING INSTRUCTIONS

Every occupation needs employees who are willing and able to follow both verbal and non-verbal instructions. Written instructions often provide a lasting reference to:

- what is to be done
- how it is to be done
- how the completed task will be evaluated.

Written instructions rather than verbal instructions may be used to ensure that:

- any number of employees get the same information
- the procedures for carrying out a task are followed exactly as written and described
- there is a lasting record of the instructions.

Written instructions will be remembered more easily if they are part of a mnemonic device. (See Suggested Teaching Strategies, "First Letter Mnemonic: A Remembering Strategy".) For example, a mnemonic to assist students in preparing to keyboard might be:

Eyes on copy
Sit up straight
Copy on right hand side of keyboard
Appropriate supplies/materials close at hand
Place fingers on home row
Everything ready? Begin keyboarding.

Suggested Activities/Community Partnerships

1. Study *Working: Today and Tomorrow:*

    - Chapter 4, "The Decision-making Process" (pages 52–56)
    - Chapter 12, "Learning How to Make Decisions" (pages 183–185).

2. a. Locate articles that discuss the role of decision making in the job search/job selection process.

   b. Describe, in writing or in chart form, the various stages in:

   - a simple decision-making process
   - a more complex decision-making process.

   c. Provide examples of a situation in which you would use:

   - the simple decision-making process
   - the more complex decision-making process.

3. At times, a set of written instructions may appear to be in conflict with previous instructions given orally.

   a. Which instructions would you follow? Why?

   b. If you are not able to decide on which instructions to follow, what would you do?

4. Discuss:

   - What are the advantages/disadvantages of written instructions?
   - What are the advantages/disadvantages of oral instructions?

5. WRITING SKILLS

The ability to demonstrate basic writing skills is an essential and integrated component in all IOP courses. Writing is a generic/transferable skill across occupational clusters and courses.

Concepts, skills and attitudes related to writing were addressed in the Career Awareness, "Job Search Skills" section of this manual. The suggested activities/community partnerships included in this unit may be used to complement and supplement the activities and resources provided in the previous unit.

Teachers of students in IOP courses are encouraged to integrate their instructional planning with teachers of English, teacher–librarians and community partners. Through cooperative planning they would:

- provide teachers of English with materials they can use to add relevance to writing instruction in the classroom; e.g., vocabulary lists, types of instructions used in the courses, trade magazines
- require students to engage in task-related writings.

The concepts, related skills and attitudes related to writing developed in this unit include:

1. Writes in related paragraphs.
2. Writes a résumé.
3. Writes a job description.
4. Submits job application forms.

RESOURCES

STUDENT LEARNING RESOURCES

- Student workbook (1992) available for each 36-level occupational course.
- *Working: Today and Tomorrow.* Canadian Edition. Toronto, Ontario: Irwin Publishing, 1990.

Correlation of Learning Objectives with Student Resource

Concepts, Skills and Attitudes	*Working: Today and Tomorrow*
1. Writing related paragraphs	Chapter 1
2. Writing a résumé	Chapter 7
3. Writing a job description	Chapter 7
4. Submitting a job application form	Chapter 7

Specific sections of each chapter are referenced under "Suggested Activities/Community Partnerships".

TEACHING RESOURCES

- Resource 43, "Sample Letter of Application"
- Resource 44, "Sample Letter of Inquiry"
- Resource 45, "Parts of a Résumé"
- Resource 46, "Sample Résumé"
- Resource 47, "Guidelines for Completing a Job Application Form"
- Resource 48, "Sample of a Completed Job Application Form"
- Resource 49, "Sample Covering Letter"
- Community partners.

1. USING PARAGRAPHS

The job search process often involves writing. Similarly, there are many occupations in which the ability to write using the basic rules of grammar is important.

The ability to write using the basic rules of grammar communicates to readers the students' ability to think and express themselves logically.

Guidelines for presenting written information in paragraph form include:

1. Brainstorm your thoughts and ideas on the subject. Use short sentences or phrases to record them.

2. Read over your list and organize the items into topic categories.

3. Number the categories; e.g., items for paragraph 1, paragraph 2.

4. These categories of items have now become the outline.

5. Follow this outline when writing; e.g., letter of application, covering letter:

    - state the most important information in the first paragraph
    - the first sentence of a good paragraph usually provides the topic for that paragraph. Stick to the topic
    - be brief. Keep the paragraphs short and on topic
    - write legibly, clearly, accurately
    - check the spelling and punctuation
    - be polite and considerate in your writing.

Suggested Activities/Community Partnerships

1. a. Invite community partners to discuss the amount and type of writing they do in their jobs. Write a paragraph describing the use of writing in a particular job. (See Suggested Teaching Strategies, "Descriptive Writing: An Evaluation Guide".)

    b. Discuss: Is basic writing ability an essential requirement to:

    - get the job?
    - retain the job?
    - advancement?

2. Review *Working: Today and Tomorrow*:

    - Chapter 1, "What Employers Look For" (pages 14–15).

3. a. Write a set of instructions in point form (e.g., 1. Prepare the plan, 2. Acquire materials . . .), related to the course.

   b. Write the same set of instructions in expanded detail in the form of paragraphs.

   c. What are the advantages/disadvantages of each method of writing instructions?

4. a. Brainstorm:
   In what written/visual forms can sets of instructions be given?

   b. What form of instructions do you find most easy to understand and follow? Provide reasons for your answer.

5. Write a one-page description of the major tasks you expect to perform when in the workplace; e.g., field experience, part-time job, summer employment.

2. WRITING A RÉSUMÉ
3. WRITING A JOB DESCRIPTION
4. SUBMITTING A JOB APPLICATION FORM

The appearance and presentation of documents during the job search process is often as important as the information provided in the documents.

All documents (e.g., résumés, job descriptions, job applications, letters of inquiry) should be checked before being submitted to an employer for:

- organization – Is the information presented in a logical order?
- completeness – Have you provided all important information? Have all questions been answered?
- language use – Have the basic rules of grammar, spelling, etc., been observed? Is the document readable?
- cleanliness – Is the document clean and free from fingermarks, stains, errors?

Suggested Activities/Community Partnerships

1. Review *Working: Today and Tomorrow*:
   - Chapter 7, "Organizing Your Job Search" (page 101).

2. Locate two job advertisements that interest you in the local newspaper and respond to them.

   a. Respond to one advertisement using a letter of inquiry.

   b. Respond to the second advertisement using a letter of application. Review the following resources:

      - Resource 43, "Sample Letter of Application"
      - Resource 44, "Sample Letter of Inquiry".

3. You have been asked to submit your résumé and to complete a job application form after having a preliminary telephone interview.

   a. Prepare your résumé.

b. Complete the application form.

c. Prepare a covering letter that will be sent with the other documents.

The following resources may be used to guide these activities:

- Resource 45, "Parts of a Résumé"
- Resource 46, "Sample Résumé"
- Resource 47, "Guidelines for Completing a Job Application Form"
- Resource 48, "Sample of a Completed Job Application Form" (Teachers are encouraged to complete this application form to suit the course, before photocopying it.)
- Resource 49, "Sample Covering Letter".

4. Write a letter of inquiry to three local businesses/industries asking them to send you a sample job application form. Fill out the application forms applying the guidelines learned.

Additional suggested activities/community partnerships and resources on these topics are located in Unit 1, Introductory Skills: Career Awareness, "Job Search Skills".

SAMPLE LETTER OF APPLICATION

(A letter of inquiry should be keyboarded and follow a format similar to the sample below.)

4567 – 10 Street
Anytown, Alberta
T8N 3X1

January 15, 19__

M__ J. Tang, Personnel Manager
ABC Warehouse
9911 – 99 Avenue
Anytown, Alberta
T0R 4X4

Dear M__ Tang:

Your January 13th advertisement in The Journal described your need for a part-time ______________ . I believe that I have the experience and skills you require.

For the past two years I have been studying __________________ at _________________________ high school, and I am most interested in continuing in this type of work as a career when I graduate. The enclosed résumé gives further details of my qualifications.

May I have a personal interview for the position advertised? You may contact me at the above address or by telephone (403) 123–4567 after 4 p.m. daily.

Yours truly,

A. Student

Enclosure

SAMPLE LETTER OF INQUIRY

(A letter of inquiry should be keyboarded and follow a format similar to the sample below.)

4567 – 10 Street
Anytown, Alberta
T8N 3X1

January 15, 19__

M__ J. Tang, Personnel Manager
ABC Warehouse
9911 – 99 Avenue
Anytown, Alberta
T0R 4X4

Dear M__ Tang:

For the past two years I have been studying ________________ at ______________________ high school. I am looking for a part-time job that is challenging and related to my career field. I recently visited your company on a community partnership activity and believe that I would make a valuable addition to it.

May I have an interview for a position that you might have available at this time or one that could become available in the near future?

My résumé is enclosed to help you discover how I might fit into your company. You may contact me at the above address or by telephone (403) 123–4567 after 4 p.m. daily.

I look forward to hearing from you soon.

Sincerely yours,

A. Student

Enclosure

PARTS OF A RÉSUMÉ

Résumés do not have to be long. In fact, busy employers prefer typed résumés of not more than two or three pages. Your résumé should be brief but contain important facts about your education and work experience. A well-presented résumé may make the difference between the prospective employer reading your résumé or throwing it away.

The essential items of information to be included in a résumé are listed below. Begin by writing a rough draft or by preparing a list of personal information under the following main headings.

NAME, ADDRESS AND SOCIAL INSURANCE NUMBER

Use the last name you ordinarily use. Your first name should be spelled out rather than just an initial. Show your address in full, including postal code. Use your home phone number, including area code.

EMPLOYMENT OBJECTIVE

Identify the type of position you are seeking. If you want the résumé to cover a range of different jobs, then omit the employment objective. You can include it in the covering letter.

EDUCATION

Show educational qualifications starting with the most recent. You may want to list special training courses you took in high school or through organizations like St. John Ambulance if they are related to the work you are seeking.

AREAS OF KNOWLEDGE AND EXPERIENCE

In this section, include knowledge gained only from practical experience, not educational areas in which you have no practical work experience. Be honest and conservative and be sure you can back up every statement. If you are a student without any practical work experience, eliminate this section. Be sure to include any volunteer experience you have gained; e.g., baby-sitting, lawn maintenance, community work.

PERSONAL

Use your birthdate rather than age. Simply indicate "good" or "excellent" for health. If you feel an item of personal information will prejudice your chance for an interview, omit it.

INTERESTS

List several of your interests, especially if they relate to your work objective.

OTHER SKILLS

Many people have additional skills that may be useful in the workplace. Some of these skills may have been acquired as the result of past experiences, short courses, or a hobby or interest. Some of the things you might mention here are your ability to speak or write in another language, accounting skills, typing proficiency or the type of driver's licence you hold.

REFERENCES

You do not have to list your references on your résumé, but have at least three lined up. Be sure to get their permission before using them as references. Be prepared to supply the name, position, company name, address and phone number for each one.

The most important factor to bear in mind when choosing references is that the person should have a favourable opinion of you. The second most important factor is that the person should have a title that shows responsibility such as: Dr. Albert; Peter Chernoff, Instructor; Elaine Wilkins, Program Director, or R. Thibodeau, Manager.

Do not use a relative, especially one with the same last name. Do not use anyone who shares your address. Make sure that the people you select for references have good oral and written communication skills.

HINTS ON WRITING A RÉSUMÉ

A résumé is your introduction to others. Make sure it makes a good impression.

Your résumé should suit the job you are searching for. This means one completed résumé may not be suitable for all jobs. Don't make too many copies of your first completed résumé, expecting it to be suitable for all job applications.

- Be brief and concise. One to three pages is usually adequate.
- Be clear. Say what you want to in easy-to-understand terms.
- Be accurate. You may be checked on what you claim.
- Be neat. Typing your résumé on good quality bond paper is preferred.
- Be complete. Avoid abbreviating company names, dates and so on. Include all relevant information.
- Be consistent. Present similar information in a similar style and format.
- Be positive. A résumé should be positive in tone. Your choice of verbs can help. Words like "developed", "supervised", "initiated", "successfully introduced", "led", "increased" are positive ways of describing your past experience.
- Be thorough and accurate. Be sure the résumé is proofread by someone other than yourself, and correct any errors before submitting it to the prospective employer. Watch your spelling and grammar!

SAMPLE RÉSUMÉ

Jane Smith
4567 – 10 Street
Anytown, Alberta
T8N 3X1
Telephone: (403) 123–4567
SIN: 789 123 456

EMPLOYMENT OBJECTIVES

I am seeking a job in the _______ which makes use of my practical training and which will lead to a career in the _____________ business/industry.

EDUCATIONAL EXPERIENCE

Second-year student in _________ at _________ high school. The major areas of study in this program include:

-
-
-
-

I will graduate with a Certificate of Achievement in 19__.

WORK EXPERIENCE

Sales clerk: XYZ Department Store, 1988–89 (part-time and summer position)

Cashiering and waitressing: Fast Food Deli, 1990–91 (part-time and summer position).

PERSONAL INTERESTS

Dancing, skiing and other outdoor activities, meeting people.

COMMUNITY SERVICE

Member of local youth group and community choir. Worked as candystriper at a local hospital and assisted in the organization of the young children's community summer festival.

Jane Smith
page 2

EQUIPMENT I CAN OPERATE

Basic cash register, electric typewriter.

PERSONAL DATA

Birthdate: January 14, 19___
Sex: female
Marital status: single
Health: excellent

PERSONAL REFERENCES

Mr. Siva Ling, Teacher
Victoria High School
1234 – 56 Avenue
Onetown, Alberta
T3Z 1Y4
Telephone: (403) 323–4567

Ms Jorn Sven, Nurse
High Cross Hospital
5678 – 12 Street
Onetown, Alberta
T8N 4W9
Telephone: (403) 345–6789

Mrs. Joan Waters, Manager
Best Department Store
8508 – 29 Avenue
Onetown, Alberta
T0B 0X0
Telephone: (403) 333–4444

GUIDELINES FOR COMPLETING A JOB APPLICATION FORM

GENERAL GUIDELINES

- Many large businesses and industrial companies require job applicants to fill out application forms. A standard application form allows an employer to ask for the exact information required and to compare information from all applicants more easily. If you apply for a job by letter you may be mailed an application form to complete and return, or you may be called for an interview and asked to fill one out on-site. In either case, have your résumé or other career information with you so you can supply complete and accurate information.

- Fill out the application form fully. Do not omit answers to any of the questions even though some may seem unnecessary or irrelevant. If you cannot answer a question or the question does not apply to you, place a horizontal line or write N/A ("not applicable") neatly in the space to show that you did not omit the question.

- Read the directions carefully and remember that neatness in filling out the form will be considered by the employer. Most companies ask that you print in ink when filling out an application form. Take your time. Think out your answers so that you do not have to cross out or erase.

- Because some application forms ask open-ended questions, such as "Why do you want to work for this company?" or "Why do you want this job?", you should prepare yourself to answer questions of this kind before you fill out an application form.

GUIDELINES FOR EACH SENTENCE OF A JOB APPLICATION FORM

Social Insurance Number

If you have never obtained a social insurance number, apply for one. Do not delay the job search by waiting for a reply. Instead, write "Applied for" in the blank on the application form until a number is received.

Citizenship

If you are not a Canadian but have applied for citizenship, write this in, since a simple "No" answer might be reacted to negatively. If you have not applied, you can put "Not yet".

Telephone Number

Give your home telephone number. If possible, also give a second number where someone who could take a message for you is likely to be present to answer the telephone.

Position Desired

Usually you know what position you're seeking. However, a company may have a variety of positions of interest to you. If so, list them all rather than just one. In some cases, you may not know what types of positions a company has. Ask the secretary or employer what some of the common types of jobs are, as well as what openings the organization may have. Again, list several types of jobs the company might consider, such as "driver", "machine operator" and "maintenance". The more you list, the more types of jobs you will be considered for.

Desired Weekly Earnings

If you know the company's standard wages for the position you're seeking, write in that figure. If not, either leave the space blank or write "Open" or "Normal rate". These answers indicate that you have no absolute minimum. The risk in putting a high figure here is that the employer may feel it is too high and not interview you, when, in fact, the employer may offer an even higher salary after talking to you.

Bondable

This question refers to the practice of obtaining a type of insurance on employees who are in a position of financial responsibility. If you do not have a criminal record, you are probably bondable.

Car Available

If you do not have a car, but would get one for the right kind of job, write "If required".

Past Employment and Reason for Leaving

For each job recorded on an application form, the reason for leaving may be requested. There are usually several reasons for leaving a job. Reasons such as lay-off, illness or business closure are considered acceptable. Leaving to gain more varied work experience, more responsibilities and more money are also considered acceptable reasons. Reporting being fired for wrongdoing or because of insufficient effort may create a negative impression of your potential as a new employee to a prospective employer. If you report being fired for one of these negative behaviours, you should be prepared to indicate elsewhere (i.e., in the comments section) that you have learned from past errors and that you are now ready to accept responsibility and to behave properly on the job.

Social

Questions related to your interests, amusements, activities, etc., are designed to find out what you do outside of school and the workplace. In some companies, the willingness and ability to participate in social activities are considered important to staff morale and well-being.

Comments

This section permits a job applicant to provide any other information to the employer that may be considered relevant to the position being applied for. It also allows a job applicant to tell the employer why he or she would like to work for the company. A well thought out statement commencing with "I would like to work for your company because . . ." may create a very positive impression and provide an applicant with "an edge" over an applicant who does not complete this section of the job application form.

SAMPLE OF A COMPLETED JOB APPLICATION FORM

This application form is intended to be a sample only; it complies with the *Individual's Rights Protection Act*. It is not intended to reflect all of the information that an employer might need. It is recognized that certain employers may, for various reasons, require particular job-related information about an individual or his or her background.

(PLEASE PRINT CLEARLY)

Position applied for: ____

Name: ______________________ Telephone: ______________ (residence)

Address: ______________________ ______________ (business)

____

____

(Postal Code)

Are you 18 years of age or over? ________ Yes ________ No

Are you legally entitled to work in Canada? ________ Yes ________ No

Are you willing to work in a non-smoking environment? ________ Yes ________ No

EDUCATION

School	Course of Study (List all major subjects)	Number of Years Completed	Degree or Diploma Obtained
High School			
College			
Other Institutions			

List any additional education or training of which you would like us to be aware.

____

____

____

____

EMPLOYMENT HISTORY
(Begin with Most Recent)

Company Name and Address	Position Held	From	To	Supervisor's Name	Reason for Leaving

May current employer be contacted for a reference? ______ Yes ______ No

PERSONAL INTERESTS AND ACTIVITIES (such as clubs, organizations, etc.) to which you belong. Exclude anything with an ethnic or religious affiliation.

____

____

ADDITIONAL INFORMATION

____

____

EXPERIENCES

Give two work-related references. (Recent graduates may name a teacher or professor as one.)

1. ____________________ years acquainted: _____ Phone: ______________
2. ____________________ years acquainted: _____ Phone: ______________

Personal reference:

Name: ____________________ years acquainted: _____ Phone: ______________

Note: I understand that any offer of employment may be made contingent upon a satisfactory job-related medical. I declare that the statements made by me in this application form are true and complete. I understand and agree that a false statement may disqualify me from employment, or result in dismissal.

Signature: ______________________________ Date: ______________

SAMPLE COVERING LETTER

(A thank you letter should be keyboarded and follow a format similar to the sample below.)

4567 – 10 Street
Anytown, Alberta
T8N 3X1

May 1, 19__

Ms J. Smith, Personnel Manager
_________ Company
9911 – 99 Avenue
Anytown, Alberta
T0R 4Y4

Dear Ms Smith:

Thank you for the opportunity to learn about your company and to tell you a little about myself during the recent telephone interview.

As requested, I am enclosing my résumé and a completed application form for your consideration. I am available for a personal interview any weekday after 12 noon and can start work full-time at the end of the school year, June 30.

Yours truly,

____

6. MATHEMATICAL SKILLS

Each IOP course is designed to encourage students to use basic mathematical concepts and skills and to develop an appreciation of the importance of computational competence and problem solving as both life and work skills.

Teachers of IOP occupational courses should attempt to:

- integrate lesson planning with teachers of mathematics (see Suggested Teaching Strategies, "AVID: A Strategy for Transfer")
- integrate appropriate level mathematics into normal use of equipment, tools and supplies
- include basic mathematical skills as a component of student evaluation
- use metric, imperial and U.S. measures where appropriate
- encourage students to use calculators and measuring tools correctly as both a life and a work skill.

Mathematical skills may be integrated with occupational courses in a variety of ways including:

- checking inventories
- handling cash, cheques and credit transactions/making and checking change
- estimating supply requirements and costs of a project or service
- measuring; e.g., area, length, mass, temperature, volume
- interpreting pay checks
- writing bills and work orders.

The concepts, skills and attitudes related to mathematics in this unit include:

1. Uses metric units of measurement.
2. Uses imperial units of measurement, where necessary.
3. Solves practical mathematical problems.
4. Applies ratio, proportion and per cent in occupational contexts.
5. Calculates hourly, weekly, monthly income.
6. Calculates costs, sales, commissions, profit.
7. Handles cash, cheque and credit transactions.

RESOURCES

STUDENT LEARNING RESOURCES

- Student workbook (1992) available for each 36-level occupational course.
- *Working: Today and Tomorrow.* Canadian Edition. Toronto, Ontario: Irwin Publishing, 1990.

Correlation of Learning Objectives with Student Resource

Concepts, Skills and Attitudes	*Working: Today and Tomorrow*
1, 2. Units of measurement	Chapter 1
3. Practical mathematical problems	Chapter 1
4, 5, 6. Calculating	Chapter 1
7. Handling money	Chapter 1

Specific sections of each chapter are referenced under "Suggested Activities/Community Partnerships".

TEACHING RESOURCES

- Resource 50, "Metric Practice Guide for Teachers"
- Resource 51, "Measuring Tools and Units of Measurement Chart"
- Resource 52, "Units of Sale and Measurement Chart"
- Resource 53, "Change Bank"
- Resource 54, "Cash, Cheque and Credit Handling Procedures"
- Community partners.

1. METRIC UNITS OF MEASUREMENT
2. IMPERIAL UNITS OF MEASUREMENT

Metric and Non-metric Measurement

Alberta Education's Metrication Policy includes the following:

> **SI units become the principal system of measurement in the curriculum of the schools in the province.**
>
> It has become imperative that the school curriculum prepare students to cope with metric measures in all facets of their life. In addition, many students will require a detailed knowledge of more specialized units used in specific career fields.
>
> Resource materials for the classroom should use SI units as the principal measuring system with only such references to the imperial or "old" metric systems as are unavoidable.
>
> It is entirely possible that some of the high school technical and vocational programs will have a need to continue teaching the use of imperial units. It may take a specific technological area some considerable time to make the change, especially one that uses machinery with a long working life.
>
> Since measurement is an activity-related process, it follows that individuals — teachers as well as students — learn the metric units while measuring or in using the units that one is learning.

In accordance with the provincial metrication policy, teachers should:

- **use SI units of measurement whenever possible in activities**
- **use imperial or other non-metric units only where the use of such measurement parallels its common usage in occupations**
- **Resource 50, "Metric Practice Guide for Teachers".**

Suggested Activities/Community Partnerships

1. Review *Working: Today and Tomorrow*:
   - Chapter 1, "Workers on the Move" (pages 2–9).
   - Chapter 1, "Social Change" (pages 9–12).

2. Investigate the use of units of measurement in the workplace by:

   - visiting a work site and observing the use of measurement tools that you are not familiar with and units. Use Resource 51, "Measuring Tools and Units of Measurement Chart", to record your observations
   - inviting community partners to discuss with the class the use of SI metric and non-metric tools and units in occupations.

3. Keeping in mind recent changes in the business/industry:

   a. What are the advantages/disadvantages of using:

      - metric units of measurement?
      - imperial units of measurement?

   b. In which related occupations, if any, are you most likely to find the use of:

      - metric units of measurement?
      - imperial units of measurement?

   c. Why do some businesses; e.g., supermarkets, use both metric and imperial units in their display of unit prices; e.g., $.90/lb, $1.98/kg?

4. a. Visit a local business that supplies materials to the school/workplace and identify and record items that are usually sold by:

      - area
      - length
      - volume
      - mass.

   b. Indicate whether the materials are sold in metric or imperial units of measurement.

   Use Resource 52, "Units of Sale and Measurement Chart", to record your observations and discussions.

3. MATHEMATICAL-WORD PROBLEMS
4. RATIO, PROPORTION, PER CENT

Basic mathematical-word problems usually involve numeric calculations using whole numbers, fractions and decimals and the use of ratio, proportion and per cent. Some students tend to experience difficulty comprehending these skills; it is, therefore, important that students be given the opportunity to learn to perform them in concrete contexts.

Suggested Activities/Community Partnerships

1. Using course-related contexts, define the terms:

   - ratio
   - proportion
   - per cent.

2. Brainstorm and list the course-related tasks that require you to:

   a. solve mathematical-word problems; e.g., What is the cost of purchasing two dozen items at a cost of $1.49 per item?

   b. calculate ratios, proportions and/or per cents.

3. Invite guest speakers from occupations to discuss the following questions:

   - Is the use of mathematical skills in the workplace increasing or decreasing?
   - Is the ability to perform basic calculations an important entry-level skill? Why or why not?
   - What calculating tools are used in the workplace; e.g., calculator, cash register?

4. Invite a guest speaker from a local bank, credit union or loan company to discuss the cost of borrowing money to open or operate a small business. Inquire about:

   - interest rates
   - collateral required
   - methods and terms of repayment.

5. a. Maintain a record of time spent on various tasks and time spent on a part-time job (refer to section on Organizational Skills: Resource 31, "Time Grid").

   b. What proportion of your time each day is spent:

      - at school?
      - at a part-time job?
      - on social activities?
      - studying?
      - sleeping?

   c. If you wanted to increase the time spent at a part-time job by fifteen per cent, where would you take the time from? How much time would you have to take from one or more of your other daily activities? How much more would you earn if your wage rate is $5 per hour?

6. If you have a part-time job, look at your pay cheque (i.e., the detailed statement showing earnings and deductions) for the last pay period:

   a. What were your gross earnings?

   b. What were your deductions for:

      - income tax?
      - unemployment insurance?
      - workers' compensation?

   c. What proportion of your gross earnings were deducted?

   d. What percentage of your gross earnings was each deduction?

e. If you received a seven per cent increase, how much more would you be earning:

  - hourly?
  - weekly?
  - annually?

5. CALCULATING INCOME
6. CALCULATING COSTS, SALES, COMMISSION, PROFIT

Income includes money received from a variety of sources, including:

- wages/salary
- interest on savings
- dividends on investments
- profit from sales/business.

Income is decreased through:

- deductions; e.g., income tax, medical/hospital insurance, workers' compensation
- payment of loan interest
- pay down of loan principal.

For owners/operators of small businesses, not all income is profit. While income may be high, the cost of operating the business will determine the amount of profit.

The cost of operating a business may include the cost of:

- rent
- business taxes
- insurance
- equipment and tools purchase and maintenance
- property maintenance
- supplies
- staff.

In some occupational clusters, a person may be either employed or self-employed and work on commission.

Commission is the amount of money earned for selling a product or service to others (e.g., a furniture or car salesperson may work on a fixed commission for each item/car sold or on an increasing rate of commission if more than a set number of items/cars are sold within a fixed period [e.g., week, month]).

Suggested Activities/Community Partnerships

1. Visit a local bank or trust company and obtain and read a pamphlet or booklet on handling your finances.

2. a. Investigate the cost of setting up a small business by consulting community partners; e.g., bank manager, small business operators.

   b. List each item and include its cost; e.g., equipment, tools, supplies, rent, taxes, insurance. Calculate the annual expenditures.

   c. Project the first year's income for the business.

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d. Calculate the anticipated profit for the first year of business.

e. What percentage of the total income is the projected profit?

f. Based on an average work year of forty hours work per week for fifty weeks, calculate the projected hourly earnings after expenditures.

$$\text{Hourly earnings} = \frac{\text{Income} - \text{Expenditure}}{\text{Number of Hours Worked} \times \text{Weeks Worked}}$$

3. a. Interview community partners who are familiar with the different ways income is earned in course-related occupations.

   b. Using the information you obtain, discuss:

   - The advantages/disadvantages of different ways of earning an income; e.g.,
     - hourly pay
     - weekly/monthly pay
     - commission on sales/production
     - piecework – self-employment
   - What methods of earning an income are possible in course-related occupations?
   - What methods of earning an income would you choose from those available? Why?

7. HANDLING CASH, CHEQUE AND CREDIT TRANSACTIONS

In some occupational courses, (e.g., automotive services, business services, esthetology, food services, hair care, horticultural services) students may be expected to learn the role of a cashier. Cashiers need to be able to:

- add columns of figures
- accept money (cash, cheques, credit cards)
- make change
- keep records
- balance accounts
- operate a cash register or cash drawer.

In some situations, a cashier may also be required to sell some products to customers. Their main task, however, is to handle money correctly.

Students in other occupational courses may not be expected to handle money. They may, however, be required to write work orders and to estimate and total the costs of labour, parts and other expenses involved in a job; e.g., agricultural mechanics, automotive services, warehouse services.

General procedures for counting money, making change and completing work orders are shown, when appropriate, in the student workbook. Community partnership activities will enable students to gain increased understanding of specific procedures used in different workplaces.

Suggested Activities/Community Partnerships

1. New technology is being designed to decrease the possibility of making mistakes when handling cash, cheque and credit transactions.

   a. Visit a variety of course-related workplaces and identify the equipment being used by cashiers and others who handle cash and credit transactions.

b. List each item of equipment and describe:

- what it is designed to do
- its advantages/disadvantages over earlier equipment/systems
- the training required in order to operate the equipment.

Note: Point-of-sale equipment may include:

- bar code readers
- electronic calculations
- electronic credit card validators and recorders
- electronic cash registers and inventory control systems.

c. If you were operating your own business, what equipment/system would you use to ensure that cash, cheque and credit transactions were handled correctly?

2. A float is an initial amount of cash (paper money and coins) deposited in a cash register. It is used to provide change.

a. Set up a float of $100 for a course-related business and ensure that an appropriate amount of each denomination of paper money and coin is included. (Resource 53, "Change Bank" may be used in this activity.)

3. Job shadow a cashier in a local business and observe how:

- cash (paper money and coins) is received and checked
- change is made (What is the checking procedure used?)
- credit card purchases are handled
- large denomination bills are stored
- personal checks are handled
- cash drawer is balanced at the end of a shift/day.

Use Resource 54, "Cash, Cheque and Credit Handling Procedures", to record your observations.

4. Discuss:

- Handling money is a responsibility in business. What precautions should a cashier take to ensure money (cash and credit sales) is properly handled?

5. Invite community partners (e.g., cashier, receptionist, business operator/owner) to discuss the responsibilities of a cashier. Questions that may be asked include:

- Who is responsible if the money does not balance with the sales slips?
- Are counterfeit bills a problem? How can they be recognized?
- Are "short-change artists" a problem? What confidence tricks do "short-change artists" use? What should a cashier do when confronted by one?

6. Practise receiving money, making change and dealing with related problems through on-the-job work experience as well as by role playing.

METRIC
PRACTICE GUIDE

for

TEACHERS

BASED ON ACCEPTED CANADIAN STANDARDS

This document is published solely as information providing current metric practices as accepted by the Standards Council of Canada.

PREPARED FOR DISTRIBUTION TO
ALBERTA SCHOOLS IN COOPERATION WITH
ALBERTA GOVERNMENT SERVICE, METRIC BRANCH
AND
ALBERTA EDUCATION

This supplementary practice guide was prepared by the following members of the Calgary Board of Education:
Dick Holmes, Education Consultant
Sue Buchanan, Science Specialist
Bob Bushell, Teacher
Marshall Bye, Mathematics Supervisor
Bob Michie, Secondary Mathematics Consultant

1982 11 15

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USING UNITS

1. Unit names are spelled out in lower-case letters.
   e.g., litre newton kilogram

   Exception – degree Celsius

2. Only one prefix is used with a unit at one time.
   e.g., centilitre decimetre

3. If a compound unit involving division is spelled out, the word "per" is used.
   e.g., metres per second revolutions per minute

4. If a compound unit involving multiplication is spelled out, no hyphen is used.
   e.g., kilowatt hour

5. The choice of the appropriate decimal multiple or sub-multiple of a unit is governed by convenience. However, the use of prefixes representing 10 raised to a power that is a multiple of 3 is recommended.
   e.g., 0.6 km ($m \times 10^3$) rather than 6 hm ($m \times 10^2$)

USING SYMBOLS

1. The symbols are always printed in upright type.
   e.g., m g °C L

2. Symbols are written in lower-case letters, except when the unit name is derived from a proper name.
   e.g., m s N Pa

   Exception – L (litre) the symbol ℓ is not acceptable.

3. When the names of units which derive from a proper name are written out in full, only Celsius is capitalized.
   e.g., newton pascal

4. Symbols should be used with numerals.
   e.g., 7 cm seven centimetres

5. Symbols are never pluralized.

6. A symbol is not followed by a period (except at the end of a sentence).

7. Symbols for prefixes are shown in lower-case except for those that are greater than "kilo".
   e.g., kW (kilowatt) MW (megawatt)

8. Exponents are used with symbols for units that are squared or cubed.
   e.g., m^2 cm^3

9. Symbols should not be used to start a sentence.

10. Compound symbols formed by dividing units contain a solidus (/) to indicate the division.
e.g., km/h (kilometres per hour) r/min (revolutions per minute)

11. The solidus, as a symbol of division, must not be repeated in the same expression unless ambiguity is removed by the use of brackets.
e.g., (m/s)/s is acceptable
m/s^2 is preferable

12. Division by a unit may be shown by means of a negative exponent. In such cases, the dot must also be used to avoid misunderstanding.
e.g., m•s^{-1} (metre per second)

13. When a unit is formed by division, the prefix, if any, should be attached to a unit in the numerator.
e.g., km/s not m/ms

Exception – When the base unit "kilogram" appears in a denominator.
e.g., MJ/kg is preferred to kJ/g.

14. Compound symbols formed by multiplying units contain a dot to indicate multiplication.
e.g., kW•h (kilowatt hour) N•m (newton metre)

USING NUMERALS

1. A space is left between the last digit of a numeral and the first letter of the symbol.
e.g., 45 g 60 MW

Exception – When the first character of a symbol is not a letter, no space is left.

e.g., 15°C 30° 20 '40" (30.344° is the method used with computers and in compilation)

2. A decimal fraction is indicated by means of a decimal marker on the line and, at present in Canada, the marker is generally a point positioned in line with the base of the associated numeral.

3. Spaces, not commas, are left between groups of 3 digits to the left and right of the decimal marker.

Note: The space is optional if there are only 4 digits to the left or right of the decimal, unless such numerals are listed in a column with other numerals of 5 digits or more.
e.g., 12 345,678 901 2
1245 (1 245 optional)
5.1234 (5.123 4 optional) but 5.123 45

Exception – These guidelines do not apply to monetary units used on negotiable instruments. To help avoid fraud (filling in the space with a numeral), negotiable instruments will continue to use a comma. Students should recognize both forms of writing numerals.

4. Decimal fractions are generally preferred to common fractions.

5. A zero is placed to the left of the decimal marker to indicate that there is no other digit to the left.
e.g., 0.25

6. In general, only one unit should be used to express a measured quantity.
   e.g., 1.15 m is preferred to 1 m 15 cm

7. In general, in the expression of any quantity, a prefix should be chosen so that the numerical value lies between 0.1 and 1000. However, when similar quantities are compared, it is better to use the same prefix for all items even though some values may fall outside the 0.1 to 1000 range.

8. A dot must not be used as a multiplier between numerals.
   e.g., 5×7 not 5•7

9. In the expression of numbers over ten, digits are preferred to fully spelled out words.
   e.g., 28 m

TABLE OF SI PREFIXES*

Multiplying Factor	Prefix	Symbol
1 000 000 000 000 000 000 = 10^{18}	exa	E
1 000 000 000 000 000 = 10^{15}	peta	P
1 000 000 000 000 = 10^{12}	tera	T
1 000 000 000 = 10^{9}	giga	G
1 000 000 = 10^{6}	mega	M
1 000 = 10^{3}	kilo	k
100 = 10^{2}	hecto	h
10 = 10^{1}	deca	da
0.1 = 10^{-1}	deci	d
0.01 = 10^{-2}	centi	c
0.001 = 10^{-3}	milli	m
0.000 001 = 10^{-6}	micro	µ
0.000 000 001 = 10^{-9}	nano	n
0.000 000 000 001 = 10^{-12}	pico	p
0.000 000 000 000 001 = 10^{-15}	femto	f
0.000 000 000 000 000 001 = 10^{-18}	atto	a

*Canadian Metric Practice Guide
National Standard of Canada
CAN 3-Z234.1-79
Canadian Standards Association

UNITS, PREFIXES AND SYMBOLS

Name of Unit or Prefix	Symbol	Quantity	Practical Equivalent
ampere	A	electric current	base unit
ampere per metre	A/m	magnetic field strength	
candela	cd	luminous intensity	base unit
candela per square metre	cd/m^2	luminance	
centi	c	prefix	$10^{-2} = 0.01$
centilitre	cL	capacity	0.01 L
centimetre	cm	length	0.01 m
coulomb	C	electric charts	A•s
cubic centimetre	cm^3	volume	1 cm^3 (volume) = 1 mL (capacity)
cubic metre	m^3	volume	1 m^3 (volume) = 1 kL (capacity)
cubic metre per mole	m^3/mol	molar volume	
cubic metre per second	m^3/s	volume flow rate	
day	d	time	24 h
deca	da	prefix	$10^1 = 10$
decalitre	daL	capacity	10 L
decametre	dam	length	10 m
deci	d	prefix	$10^{-1} = 0.1$
decilitre	dL	capacity	0.1 L
degree Celsius	°C	temperature	
degree (of arc)	°	angle	180° = πrad
farad	F	electric capacitance	C/V
giga	G	prefix	10^9
gram	g	mass	0.001 kg
gram per cubic centimetre	g/cm^3	density	1 gm/cm^3 = 1 000 kg/m^3
gram per millilitre	g/mL	density	1 gm/mL = 1 g/cm^3
hectare	ha	area	10 000 m^2
hecto	h	prefix	$10^2 = 100$

Name of Unit or Prefix	Symbol	Quantity	Practical Equivalent
hectometre	hm	length	100 m
henry	H	inductance	Wb/A
hertz	Hz	frequency	$s^{-1} = \frac{1}{s}$
hour	h	time	60 min
joule	J	energy	
joule per kilogram	J/kg	specific energy	
joule per kilogram kelvin	J/(kg•K)	specific heat capacity	
kelvin	K	temperature	base unit
kilo	k	prefix	$10^3 = 1\,000$
kilogram	kg	mass	base unit
kilogram metre per second	kg•m/s	momentum	
kilogram per cubic metre	kg/m^3	density	g/L
kilohertz	kHz	frequency	1 000 Hz
kilolitre	kL	capacity	1 000 L
kilometre	km	length	1 000 m
kilometre per hour	km/h	speed	
kilonewton	kN	force	1 000 N
kilopascal	kPa	pressure	1 000 Pa
kilowatt	kW	power	1 000 W
litre	L	capacity	1 L (capacity = 1 cm^3 (volume)
lumen	lm	luminous flux	cd•sr
lumen second	lm•s	quantity of light	
lux	lx	illuminance	lm/m^2
lux second	lx•s	light exposure	
mega	M	prefix	$10^6 = 1\,000\,000$
megagram	Mg	mass	1 000 000 g
metre	m	length	base unit
metre per second	m/s	speed, velocity	3.6 km/h

Name of Unit or Prefix	Symbol	Quantity	Practical Equivalent
micro	μ	prefix	$10^{-6} = 0.000\,001$
micrometre	μm	length	10^{-6} m
milli	m	prefix	$10^{-3} = 0.001$
millilitre	mL	capacity	0.001 L
millimetre	mm	length	0.001 m
minute	min	time	60 s
minute (of arc)	′	angle	60′ = 1°
mole	mol	amount of substance	base unit
mole per litre	mol/L	concentration	
newton	N	force	kg•m/s^2
newton metre	N•m	moment of force torque energy	1 J
ohm	Ω	electric resistance	V/A
pascal	Pa	pressure	N/m^2
pascal second	Pa•s	dynamic viscosity	
radian	rad	plane angle	πrad = 180°
radian per second	rad/s	angular velocity	$\frac{180}{\pi}$°/s
revolution per minute	r/min	frequency	
revolution per second	r/s	frequency	
second	s	time	base unit
second (of arc)	″	angle	60″ = 1′
siemens	S	electric conductance	A/V
square centimetre	cm^2	areas	0.00 1 m^2
square metre	m^2	area	10 000 cm^2
square metre per second	m^2/s	kinematic viscosity	
steradian	sr	solid angle	
tesla	T	magnetic flux density	Wb/m^2 or N/A•m
tonne (metric ton)	t	mass	1 000 kg
volt	V	electric potential	W/A or J/C

Name of Unit or Prefix	Symbol	Quantity	Practical Equivalent
volt	V/m	electric field strength	10^{-6} = 0.000 001N/C
watt	W	power	J/s
watt per metre kelvin	W/(m•k)	heat conductivity	
watt per square metre	W/m^2	heat flux density	
weber	Wb	magnetic flux	V•s or J/A
year (annum)	a	time	365.25 d

SUMMARY OF COMMONLY USED UNITS

Quantity	Unit	Symbol	Relationship
Length	kilometre metre decimetre centimetre millimetre	km m dm cm mm	1 km = 1 000 m 1 m = 10 dm = 100cm 1 dm = 10 cm 1 cm = 10 mm
Area	square kilometre hectare square metre square centimetre	km^2 ha m^2 cm^2	1 km^2 = 100 h 1 ha = 10 000 m^2 1 m^2 = 10 000 cm^2
Volume	cubic metre cubic centimetre	m^3 cm^3	1 m^3 = 1 000 000 cm^3
Capacity	kilolitre litre millilitre	kL L mL	1kL = 1 000 L 1 L = 1 000 mL
Concentration	mole per litre mole per cubic metre	mol/L mol/m^3	
Mass	megagram tonne (metric ton) kilogram gram milligram	Mg t kg g mg	1 Mg = 1 t 1 t = 1 000 kg 1 kg = 1 000 g 1 g = 1 000 mg
Time	day hour minute second	d h min s	1 d = 24 h 1 h = 60 min 1 min = 60 s
Velocity (Speed)	metre per second kilometre per hour	m/s km/h	1 m/s = 3.6 km/h
Density	kilogram per cubic metre tonne per cubic metre gram per cubic centimetre	kg/m^3 t/m^3 g/cm^3	1 t/m^3 = 1 000 kg/m^3 1 g/sm^3 = 1 000 kg/m^3
Density (of liquids)	kilogram per litre gram per millilitre	kg/L g/mL	1 kg/L = 1 000 kg/m^3 1 g/mL = 1 000 kg/m^3
Frequency	hertz	Hz	
Plane Angle	radian degree minute second	rad ° ′ ″	1 rad = $\frac{180°}{\pi}$ 1° = 60′ 1′ = 60″

Quantity	Unit	Symbol	Relationship
Amount of substance	mole	mol	
Electric current	ampere	A	
Electrical resistance	ohm	Ω	
Energy	J		
Force	newton	N	
Potential difference	volt	V	
Pressure	pascal	Pa	
Temperature	degrees Celsius	°C	

INTERRELATIONSHIPS

Excluding the mass of the container:

A cube 1 cm × 1 cm × 1 cm, if filled with water at 4 °C, holds 1 mL and has a mass of 1 g.

A cube 10 cm × 10 cm × 10 cm, if filled with water at 4 °C, holds 1 L and has a mass of 1 kg.

A cube 1 m × 1 m × 1 m, if filled with water at 4 °C, holds 1 000 L and has a mass of 1 t.

NUMERIC DATING*

Numeric dating is simply a means of expressing the date by means of numbers. The year, month and day in descending order of magnitude are expressed with 8 digits: 4 for the year, 2 for the month and 2 for the day. For example, April 7, 1975 can be expressed as 1975 04 07 or 1975-04-07.

The logic of this technique of recording a date becomes apparent when one is looking up past records that are arranged chronologically. One would first search for the year, then the month and finally the day.

24-HOUR TIMEKEEPING SYSTEM**

Sequence – The sequence of time elements in the 24-hour timekeeping system shall be:
hour minute second (if required)

Separator – A colon shall be used as the separator between hour and minute, and between minute and second.

Note: The symbols h, min, and s are not used because they are the symbols for hour, minute and second in the sense of duration or length of time. Thus 14 h 30 min expresses a measured time duration of fourteen hours and thirty minutes, while 14:30 refers to the time of day (i.e., two hours and thirty minutes past noon); 14 h 30 is ambiguous and should therefore not be used.

The absence of any separator (i.e., writing 14:00 incorrectly as 1400 or 1400 h) may give rise to the misleading practice of referring to that time as "fourteen hundred hours". It is suggested that, in speech, 14:00 may be expressed as "fourteen", "fourteen hours" or "fourteen zero zero".

e.g.,	Time	READ
	00:00	zero hour (instant of midnight, beginning of day)
	00:15	zero fifteen
	03:00	three hours
	16:30	sixteen thirty
	15:43	fifteen forty-three
	24:00	twenty-four hours (instant of midnight, end of day)

Note: Numeric dating and the 24-hour timekeeping system are not part of SI but are provided for general information.
When the figure 24 is used to represent the hour, it is never followed by any digits other than zeros.

---

* The Metric Guide
Council of Ministers of Education
Second Edition
March, 1976

** National Standard of Canada
All-Numeric Dates and Times
CAN3-Z234.4-79

MEASURING TOOLS AND UNITS OF MEASUREMENT CHART

Visit a course-related workplace and identify the measuring tools and the units of measurement used. Record your observations on the chart below.

Course: ______________________ Student: ______________________________

Workplace Visited: __________________________ Date: __________________

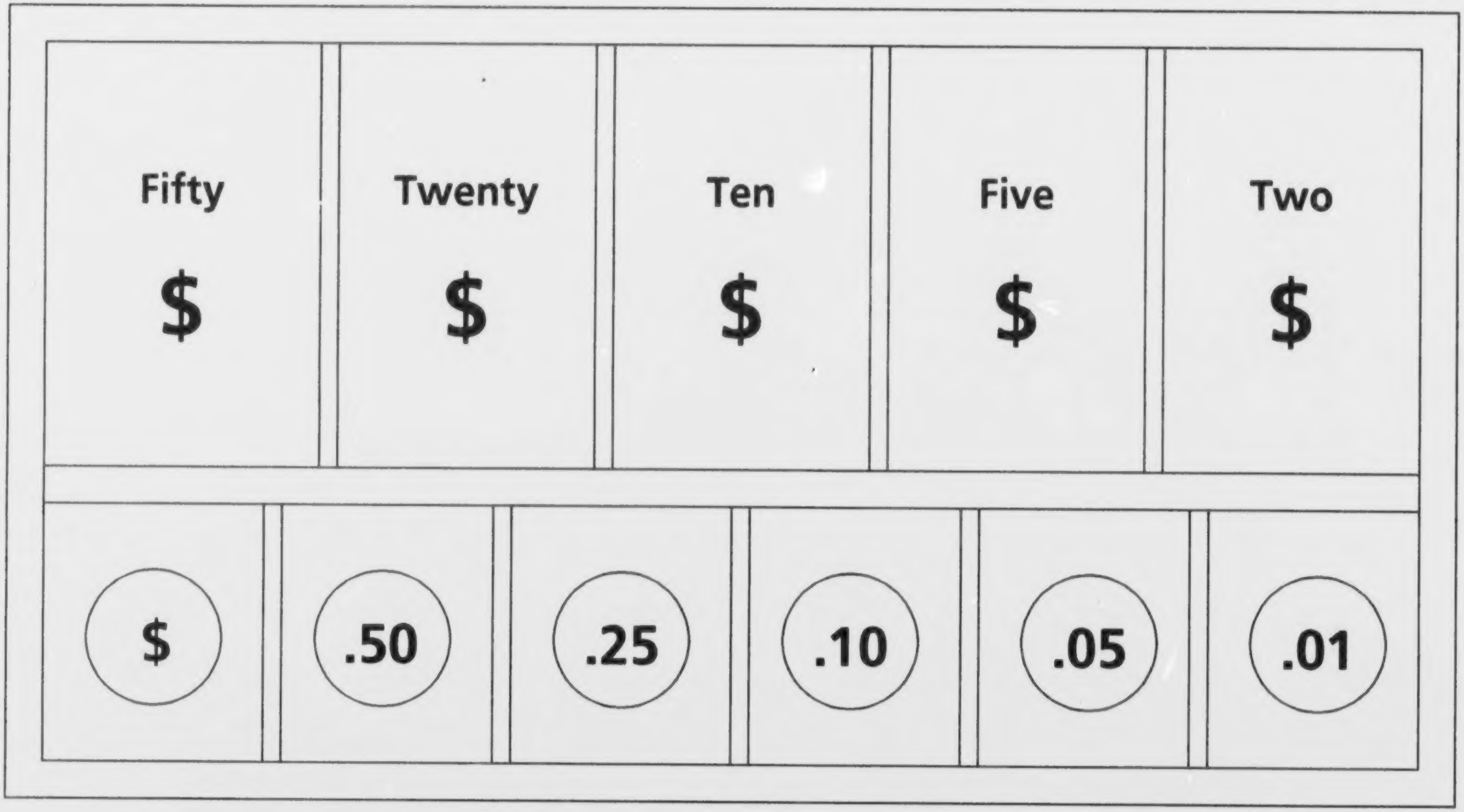
Measuring Tool	Units of Measurement	Metric	Imperial	Other
e.g., ruler	mm, cm, m	✓		

UNITS OF SALE AND MEASUREMENT CHART

Visit a local business that supplies materials to your school/workplace. With the supervisor's permission, identify the unit of sale and unit of measurement by which each item is sold.

Item	Unit of Sale				Unit of Measurement	Metric(M) Imperial (I)
	Area	Length	Volume	Mass		
e.g., apples				✓	kg	M
e.g., gasoline			✓		L	M

CHANGE BANK


Fifty
$
Twenty
$
Ten
$
Five
$
Two
$
$
.50
.25
.10
.05
.01

CASH, CHEQUE AND CREDIT HANDLING PROCEDURES

Job shadow a cashier in a local business. Record your observations of the cash, cheque and credit handling procedures used, and indicate why you think they are/are not appropriate.

Name of Business: ______________________ Date: ________________

Student: ______________________

Procedure	Appropriateness
e.g., accepting a cheque	Good procedure. Store policy was followed. Two pieces of identification were requested (e.g., credit card, driver's licence) and information recorded on the back of the cheque.

7. VISUAL SKILLS

Graphic representations (e.g., charts, graphs, webs, signs, symbols) are visual pictures of verbal statements. They may be used to improve the way we think, read, summarize and interpret information. In a classroom/lab/workplace situation visual skills help students to:

- identify and show relationships; e.g., steps in a procedure, family tree
- think about (i.e., visualize) alternatives
- identify missing components
- assess performance, achievement, growth, etc., over a period of time
- interpret, and correctly respond to emergency and hazardous warning signs and symbols.

The ability to use visual skills (e.g., observation, identification, recognition) and the related skill of interpretation is:

- **essential to the maintenance of safety in the workplace and in society**
- **necessary to the monitoring and maintaining of order and sequence in the home, the school and the workplace**
- **important to the creative dimension of many occupations.**

Teachers of occupational courses are encouraged to integrate their instructional planning with other teachers and community partners. Through cooperative planning they would:

- provide other teachers with materials they can use, to add relevance to reading and interpretation of visual information in the classroom; e.g., graphics, types of instructions used in the course, trade magazines
- require students to engage in task-related readings, interpretations and graphic design
- encourage student use of libraries and other resource centres in the classroom, school and community
- encourage librarians to obtain related resources and share these with students
- have a visible and accessible in-class resource centre that includes examples of graphic representations of course-related information.

The concepts, skills and attitudes related to visualizing developed in this unit include:

1. Responds appropriately to occupation-related signs and symbols.
2. Constructs a chart or graph related to an occupational area.

E 3. Creates an occupation-related design or product.

RESOURCES

STUDENT LEARNING RESOURCES

- Student workbook (1992) available for each 36-level occupational course.
- *Working: Today and Tomorrow.* Canadian Edition. Toronto, Ontario: Irwin Publishing, 1990.

E = Elective Component

Correlation of Learning Objectives with Student Resource

Concepts, Skills and Attitudes	*Working: Today and Tomorrow*
1. Responds appropriately to occupation-related signs and symbols 2. Constructs a chart or graph related to an occupational area 3. Creates an occupation-related design or product	Graphic representations (e.g., charts, graphs, illustrations) are contained throughout the text.

Specific sections of each chapter are referenced under "Suggested Activities/Community Partnerships".

TEACHING RESOURCES

- Resource 55, "Occupational Health and Safety: WHMIS"
- Resource 56, "Hazardous Materials: Signs and Symbols Record Chart"
- Resource 57, "Locally Designed Signs and Symbols"
- Resource 58, "Visual Information Systems"
- Community partners.

1. SIGNS AND SYMBOLS

Signs and symbols are frequently used in both the workplace and society to convey important information. Many commonly used symbols are used internationally. Learning an international symbol system reduces the need to speak, read or understand a foreign language in order to handle or use certain equipment, tools, materials or systems.

International symbols are used for:

- road signs
- hazardous products
- clothes cleaning instructions
- traffic control.

Other signs and symbols may be locally designed and used in workplaces.

In occupational courses where hazardous materials (e.g., chemicals, gases, flammable liquids, explosives, corrosives) are commonly used, students must be able to recognize the nature of these materials from their symbols and handle them properly. (See Resource 55, "Occupational Health and Safety: WHMIS", and Unit 1, Introductory Skills, "Safety".)

Suggested Activities/Community Partnerships

1. a. Study Resource 55, "Occupational Health and Safety: WHMIS".

b. Discuss:

- What is WHMIS?
- What are material safety data sheets (MSDS)?
- What are the advantages/disadvantages of the WHMIS to other methods of identifying controlled products?

2. a. Use Resource 56, "Hazardous Materials: Signs and Symbols Record Chart", to identify and record the hazardous materials used and stored in the school lab or workplace.

   b. Describe the storage area of each controlled product.

3. Visit workplaces and identify, describe and record signs and symbols in use. Use Resource 57, "Locally Designed Signs and Symbols", to record new signs and symbols not internationally recognized.

4. Invite community partners to discuss the use of signs and symbols in the workplace.

5. a. Study the following figures in the textbook, *Working: Today and Tomorrow*:

   - Figure 11.6 (page 170)
   - Figure 11.7 (page 171)
   - Figure 11.8 (page 172)

   b. Discuss which type of graph is easier to read/interpret. Give reasons for your preference.

2. CHARTS AND GRAPHS
3. CREATING A DESIGNER PRODUCT

Visual representations (e.g., graphs) may be used to provide information about:

- trends; e.g., employment, weather, wages
- sequence; e.g., tasks, events, activities
- direction; e.g., communication flow, assembly
- content; e.g., recipes, formulae, fares, taxes
- relationship; e.g., family tree, responsibility.

For example, almost any job can be represented as a series of tasks. Students should be encouraged to:

- follow the sequence of tasks as presented in job sheet procedures
- suggest alternative sequences; e.g., shortcuts, improvements
- plan a project individually and/or cooperatively using visual representations to outline the input, process, output stages of the project including:
  - jobs to do
  - tasks involved in each job
  - responsible person(s) for each job/task
  - time lines
  - costs
  - checkpoints and evaluation procedures during and at the completion of the project.

Resource 58, "Visual Information Systems", may be used as a guide when students are organizing and planning a task, compiling information, assessing alternatives, etc., (also, see Suggested Teaching Strategies, "Flow Charting: A Process Analysis Strategy").

Suggested Activities/Community Partnerships

1. Create a graphic (e.g., chart, graph, web, tree) to illustrate each of the following situations:

   a. the organizational structure in your lab or workplace

   b. the way in which materials are handled in the lab or workplace

   c. the number of services provided and the income earned in one month from your customer service program

   d. the procedure to follow in case of an emergency; e.g., fire, accident, injury, equipment, breakdown.

2. Using school and community resources, obtain copies of interesting graphics related to the course. Post them on the lab notice board and share them with classmates.

3. Keep a logbook to record the things you have learned and the skills you have acquired. Prepare this information in graphic form. It may be used as a creative part of your résumé.

4. a. In cooperation with a community partner, design and produce a project or provide a service that may be useful to others. Projects may include:

   - making a sign or symbol poster
   - craft work
   - construction design
   - volunteer work plan
   - advertising or marketing plan
   - window display
   - child care project
   - senior citizen assistance project
   - making a price list
   - constructing a bulletin board
   - designing and producing an advertising flyer
   - making WHMIS signs for the school
   - design and construct a teaching aid for the course; e.g., illustrated drawing of a piece of equipment

   b. Construct a chart that may be used to evaluate the finished product or service. (Evaluation charts provided in previous student workbooks may be used as a guide, or use the evaluation guide presented in Suggested Teaching Strategies, "Writing Directions: An Evaluation Guide".)

OCCUPATIONAL HEALTH AND SAFETY: WHMIS

WHMIS AT THE WORK SITE

By Deborah L. Smith

The Workplace Hazardous Materials Information System (WHMIS) is the most important development in occupational health and safety for many years. It is a pan-Canadian hazard communication system that deals with the most basic aspect of health and safety at work sites where chemicals are handled—the identification and understanding of hazards caused by chemicals. The implementation of WHMIS will make it much easier for employers and workers to develop and use good occupational health and safety programs.

WHMIS is fundamental right-to-know legislation. It will enable everyone at the work site to become much more knowledgeable about the hazards of the chemicals they work with or near. Information about hazardous materials (known as "controlled products" in the WHMIS legislation) will be provided in two forms:

1. labels on the products themselves, and
2. Material Safety Data Sheets (MSDSs).

PRODUCT LABELS

Controlled products, which have been brought to a work site from outside, will be labelled with a "supplier label". The supplier label not only identifies the product, but also provides basic hazard information and hazard prevention measures. Symbols, as well as written material will be used on the labels so that when the worker sees and reads the label he or she will **immediately** recognize the main hazards of the material.

Most other controlled products at work sites will be tagged with "work site labels". These include controlled products from the outside whose original supplier labels have been damaged; controlled products produced on-site for use on-site; bulk containers of controlled products, etc. The work site label identifies the product and includes basic information on its safe use, handling, storage and disposal. Work site labels also refer the user to the product's MSDS.

THE MSDS

MSDSs provide more detailed information on controlled products. Many workers and employers are already familiar with MSDSs. For the past several years [section 24 of] the Occupational Health and Safety Act has required employers to acquire "written information" (usually in the form of MSDSs) for "designated substances" present at work sites in Alberta. These "designated substances" have been listed in [Appendix D of] the Chemical Hazards Regulation.

WHMIS will bring about several changes in the current requirements for MSDSs. These changes concern which MSDSs are required, who provides them and their content.

WHMIS will require MSDSs for "controlled products". Unlike designated substances, there is no list of controlled products. A chemical is a controlled product if it meets the criteria for any one of the six WHMIS classes. These criteria are contained in the federal Controlled Products Regulation. Designated substances listed in the Alberta Chemical Hazards Regulation are controlled products. However, there are a great many controlled products which are not included in the designated substances list.

In Alberta, employers are currently required to obtain the required MSDSs (i.e., those for designated substances), but suppliers are not specifically required to provide them. WHMIS will change this situation significantly. The requirement that employers obtain MSDSs for designated substances will be removed when WHMIS comes into effect. As of 31 October 1988, Canadian manufacturers, importers and distributors will be required to provide a material safety data sheet with every controlled product they sell. This will mean that employers will **automatically** be provided with MSDSs for every controlled product they buy after October 31. Employers will be responsible for developing MSDSs for those controlled products they produce on their site (except for fugitive emissions and intermediates produced in reaction vessels, etc.). They will also have to develop or obtain MSDSs for controlled products which are on-site after 31 October 1988, but which were purchased before that date. Employers will have three additional months to achieve this latter requirement.

By the end of January 1989 all workplaces in Canada (WHMIS is a national system) will have standard-content MSDSs for all of their controlled products. These MSDSs will be updated at least every three years, and will be kept in locations that are readily accessible to workers who use the controlled products. Remember, WHMIS is a hazard communication system. Labels and MSDSs are the **forms** by which the hazard information will be communicated.

WORKER EDUCATION

The third element of the system is worker education. This is the **means** by which the communication of hazard information, from the supplier to the end user (i.e., the worker) will be completed. Full implementation of WHMIS will mean that workers who work with or near controlled products have been effectively trained so they can use the information on WHMIS labels and MSDSs to protect their own health and safety.

The worker education program specified by WHMIS has two major components. One is generic and the other is work site specific.

The generic component involves educating workers about the information which is required to be on WHMIS labels and MSDSs. It also involves training in the purpose of the required information and its significance to workers in protecting their own health and safety. Workers will be able to find out the basic properties of materials they work with and understand how those properties could produce a hazard to them in their particular work environment. This generic training will allow workers to understand better why particular hazard control methods, such as local exhaust ventilation and personal protective equipment, are necessary in specific work situations.

The generic training will be essentially the same all across the country. The work site specific training could, on the other hand, be quite different at each work site. Workers will be informed about the hazards of controlled products they work with or near. They will also be trained in safe work procedures for those products. These will include procedures for the safe use, storage, handling and disposal of the controlled products, as well as procedures for handling fugitive emissions of the controlled products and emergencies in which they might be involved.

Worker education programs will be developed in conjunction with the joint work site health and safety committee, where one exists. These programs will be reviewed annually (or more often if necessary) to keep them up-to-date.

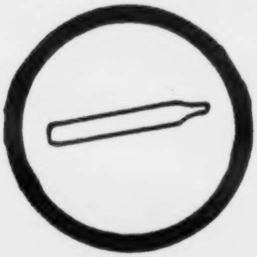
The three main elements of WHMIS — labels, MSDSs and worker education — are interdependent. When all three have been implemented, the system will be fully effective in communicating hazard information from manufacturers, importers and distributors who sell a hazardous material, to employers and workers who use it. Employers and workers will be equipped to understand chemical hazards at their work sites, and protect themselves against those hazards.

Deborah L. Smith is the WHMIS coordinator in the Occupational Health and Safety Division. This is the second in a series of articles on the Workplace Hazardous Materials Information System. The first article was contained in the Spring 1988 edition of *Occupational Health and Safety Magazine*.

If you have any questions or concerns about WHMIS, or if you would like to have your name added to the WHMIS mailing list, contact:

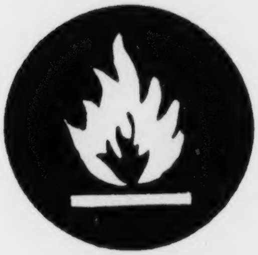
Education and Liaison Branch
Occupational Health and Safety Division
10709 Jasper Avenue
Edmonton, Alberta T5J 3N3
Telephone: (403) 427-5549

WHMIS Symbols



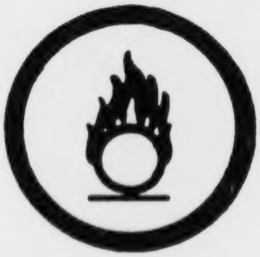
CLASS A

Compressed Gas



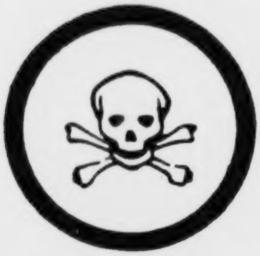
CLASS B

Flammable and Combustible Material



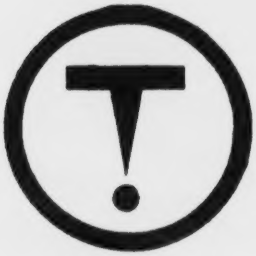
CLASS C

Oxidizing Material



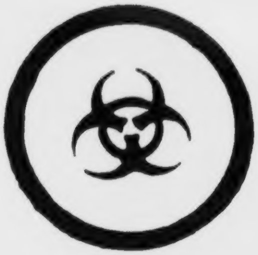
CLASS D

Poisonous Material



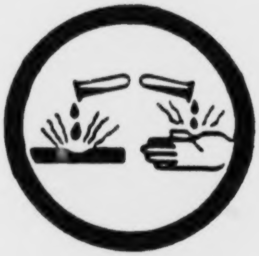
CLASS D

Toxic Material



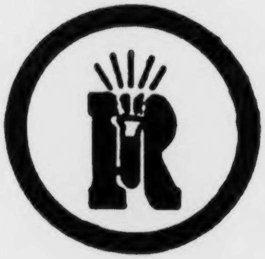
CLASS D

Biohazardous Infectious Material



CLASS E

Corrosive Material



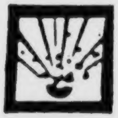
CLASS F

Dangerously Reactive Material

For permission to reprint copyrighted material, acknowledgement is made to Alberta Occupational Health and Safety for the material on "WHMIS at the Work Site".

HAZARDOUS MATERIALS: SIGNS AND SYMBOLS RECORD CHART

Identify the hazardous materials used and stored in your lab or workplace. Record the signs and/or symbols used on each item and describe the safe storage procedures followed.

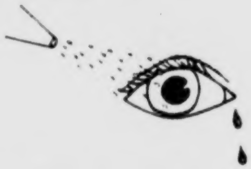
Hazardous Material	Symbol Used/Meaning	Safe Storage Procedure
e.g., 40 volume hydrogen peroxide	 Warning Explosive	Dark brown glass or synthetic container. Stored in cool, dark, closed cupboard.

LOCALLY DESIGNED SIGNS AND SYMBOLS

Visit a local workplace and identify the locally designed safety signs and symbols in use. Record details of these signs and symbols. In column one, reproduce the sign or symbol. In column two, indicate where the sign was found in the workplace. Describe the purpose of the sign or symbol in column three.

Workplace: ______________________________ Date: __________________________

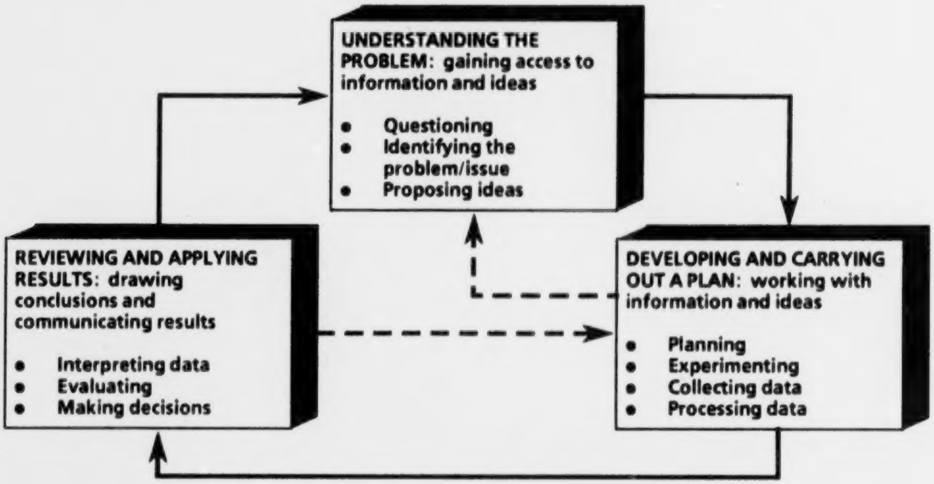
Student: ________________________________

Safety Sign/Symbol	Symbol Location	Purpose
e.g., Eyewash Station 	On wall close to band saw	Eyewash station used for workers who get dust or other materials in their eyes.

VISUAL INFORMATION SYSTEMS

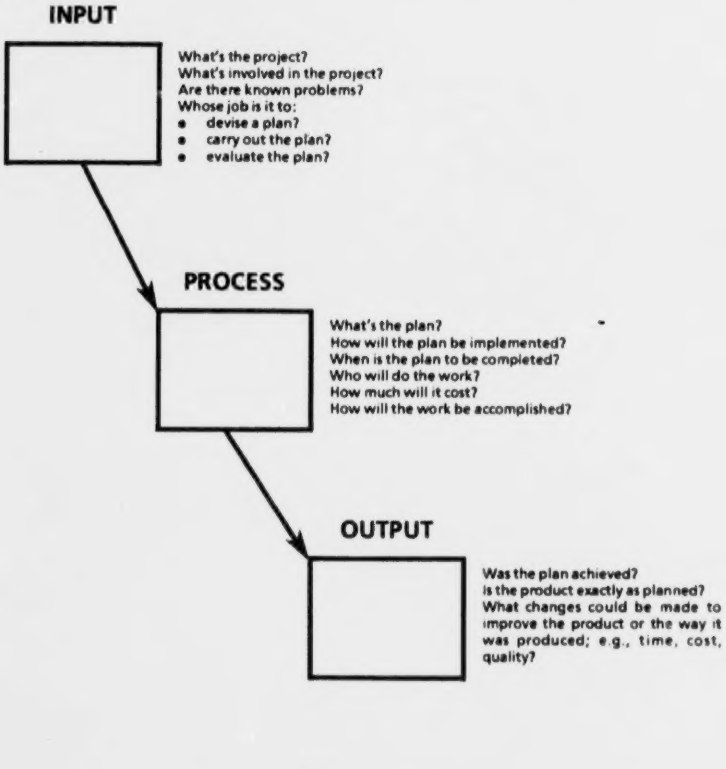
PROBLEM-SOLVING/DECISION-MAKING MODEL

Shows the process used to solve problems and make decisions.


UNDERSTANDING THE PROBLEM: gaining access to information and ideas
• Questioning
• Identifying the problem/issue
• Proposing ideas
REVIEWING AND APPLYING RESULTS: drawing conclusions and communicating results
• Interpreting data
• Evaluating
• Making decisions
DEVELOPING AND CARRYING OUT A PLAN: working with information and ideas
• Planning
• Experimenting
• Collecting data
• Processing data

INPUT, PROCESS, OUTPUT MODEL

Used to identify the major components of a task from the beginning to the end of the process.


INPUT
PROCESS
OUTPUT

What's the project?
What's involved in the project?
Are there known problems?
Whose job is it to:
- devise a plan?
- carry out the plan?
- evaluate the plan?

What's the plan?
How will the plan be implemented?
When is the plan to be completed?
Who will do the work?
How much will it cost?
How will the work be accomplished?

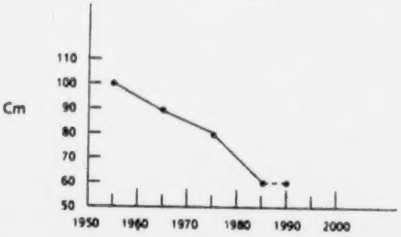
Was the plan achieved?
Is the product exactly as planned?
What changes could be made to improve the product or the way it was produced; e.g., time, cost, quality?

CHARTS AND RELATED GRAPHS

Used to present detailed information in simpler forms.

Average Rainfall	
Year	cm
1955	100
1965	90
1975	80
1985	60
1990	?

CHART

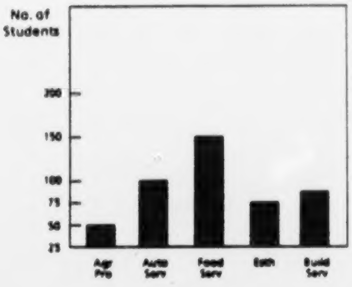


LINE GRAPH

TYPES OF CHARTS AND GRAPHS

No. of Students	Courses	Percent
50	Agr. Pro 16	10.6
100	Auto Serv 16	21.3
150	Food Serv 16	31.9
75	Esthetology 16	16.0
95	Building Serv 16	20.2

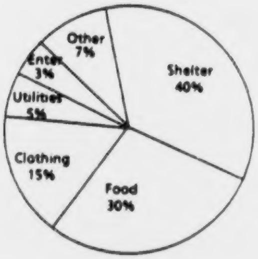
CHART



BAR GRAPH

COST OF LIVING	
ITEM	%
Shelter	40
Food	30
Clothing	15
Utilities	5
Entertainment	3
Other	7

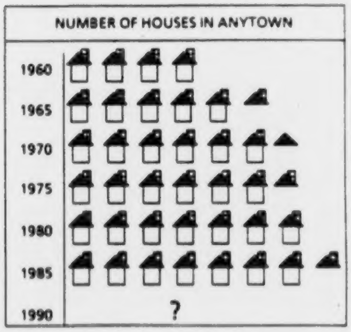
CHART



PIE GRAPH

NUMBER OF HOUSES IN ANYTOWN	
1960	400
1965	550
1970	625
1975	650
1980	700
1985	750
1990	?

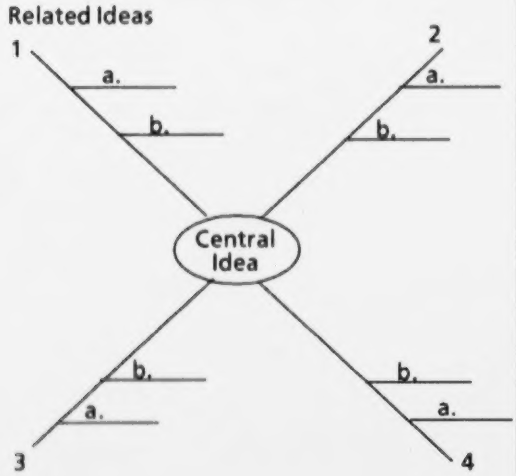
CHART



PICTOGRAPH

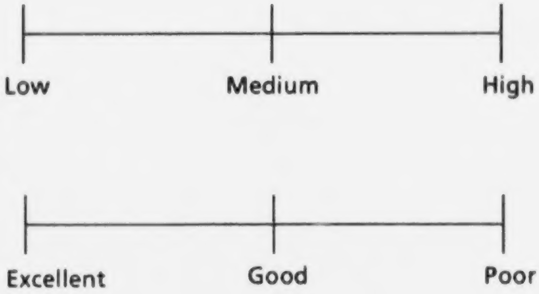
Spider Map

Used to describe the relationship between a central idea and related ideas.


Related Ideas
1
a.
b.
2
a.
b.
Central Idea
b.
a.
3
b.
a.
4

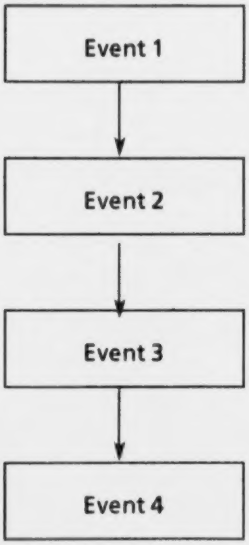
Continuum Scale

Used to show performance, progress, etc.


Low
Medium
High
Excellent
Good
Poor

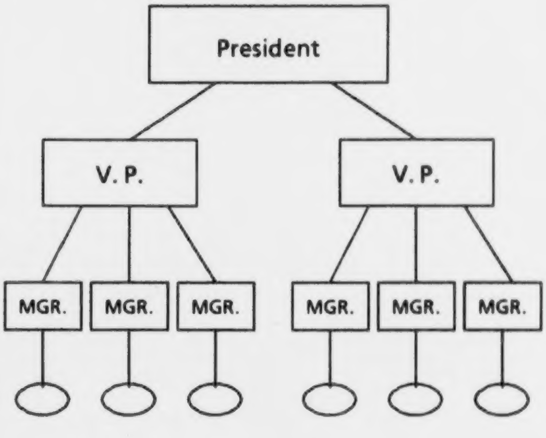
Events Chain

Used to describe the sequence of things/activities in a day, task, etc.


Event 1
Event 2
Event 3
Event 4

Network Tree

Used to show the relationship between people, activities. May also be used to show the organization of people in a company.


President
V. P.
V. P.
MGR.
MGR.
MGR.
MGR.
MGR.
MGR.

8. ENTREPRENEURSHIP

Entrepreneurs are small business owners who are happier being their own bosses. Recent research has proved that more Canadians, especially women, are choosing this option than ever before.

(*Are You Cut Out to Be an Entrepreneur?*, page 4, Alberta Career Development and Employment, 1988.)

Entrepreneurship is concerned with establishing and operating a small business (small businesses usually have from one to twenty employees). An entrepreneur is self-employed and tends to be independent, self-reliant, have drive, energy and a need for personal achievement. An entrepreneur may create a new product or service or develop a new and improved method to manufacture a product or provide a service. Every occupational cluster within the Integrated Occupational Program provides the potential for enterprise and small business operations.

Owning and operating a small business may be a realistic career goal for students who attain the Certificate of Achievement. Teachers should encourage students to identify the areas for potential entrepreneurial activities within each occupational course.

Initiating and/or participating in volunteer activities in the school and in the community provide opportunities to develop traits, skills and contacts that may relate to future entrepreneurial activities.

Teachers of occupational courses are encouraged to integrate their instructional planning with other teachers and community partners. Through cooperative planning they would encourage students to:

- volunteer to participate in school and community activities
- take initiatives to initiate, promote and provide customer services
- participate in further education opportunities related to increasing their awareness about enterprise and small business ownership and operation.

The concepts, skills and attitudes related to entrepreneurship included in this unit include:

1. Identifies local entrepreneurs.
2. Identifies traits of entrepreneurs.
3. Identifies steps necessary to start a small business.

E 4. Initiates a small business.

RESOURCES

STUDENT LEARNING RESOURCES

- Student workbook (1992) available for each 36-level occupational course.
- *Working: Today and Tomorrow.* Canadian Edition. Toronto, Ontario: Irwin Publishing, 1990.

E = Elective Component

Correlation of Learning Objectives with Student Resource

Concepts, Skills and Attitudes	*Working: Today and Tomorrow*
1. Identifies local entrepreneurs	Chapters 3, 5
2. Identifies traits of entrepreneurs	Chapters 3, 5
3. Identifies steps necessary to start a small business	Chapter 5
4. Initiates a small business	Chapter 5

Specific sections of each chapter are referenced under "Suggested Activities/Community Partnerships".

TEACHING RESOURCES

- Resource 59, "Survey of Small Businesses"
- Resource 60, "Characteristics of Successful Entrepreneurs"
- Resource 61, "Entrepreneurship: Suggested Teaching Strategies"
- Resource 62, "Certificate of Entrepreneurship"

A variety of resources related to entrepreneurship and small business operations may be obtained from:

- Alberta Career Development and Employment
  e.g., *Are You Cut Out to Be an Entrepreneur?* (1988)

  This publication is available from:
  Learning Resources Distributing Centre
  12360 – 142 Street
  Edmonton, Alberta
  T5L 4X9
  Telephone: 427–2767

- Alberta Consumer and Corporate Affairs Offices are located in the following areas:

Calgary	297–5700
Edmonton	427–5782
Grande Prairie	743–7231
Lethbridge	381–5360
Medicine Hat	529–3535
Peace River	624–6214
Red Deer	340–5241

- Alberta Economic Development and Trade (A listing of some available resources and access offices follow the fourth learning objective of this strand.)

- Banks and trust companies

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- Canadian Foundation for Economic Education
  252, 3100 Street West
  Suite 7-205
  Toronto, Ontario
  M5S 1V5
  (416) 968-2236
- Canadian Organization of Small Business
  Suite 103, 10301 - 108 Street
  Edmonton, Alberta
  T5J 1L7
  (403) 423-2672
- Junior Achievement Counsellors
- Ministry of Industry Trade and Technology
  Province of Ontario
  Queens Park
  Toronto, Ontario
  M7A 2E1
- Local newspapers - display and classified business advertisements
- Flyers announcing new business operations and opportunities for volunteers
- Copy of notice board advertisements offering entrepreneurial services
- Community partners.

1. LOCAL ENTREPRENEURS
2. ENTREPRENEURIAL TRAITS

Most communities have businesses operated by entrepreneurs.

The characteristics of a successful entrepreneur are similar to the traits possessed by efficient and effective employees and volunteers. Successful entrepreneurs, employees and volunteers are:

- interested in their work
- committed to doing a quality job
- time and task oriented
- decision makers and problem solvers.

The major difference between an entrepreneur and the average employee is said to be the entrepreneur's willingness to take risk.

In addition, entrepreneurs need to keep up-to-date about:

- improvements in their field; e.g., suppliers, products
- consumer buying trends; e.g., types of product/service wanted
- local and regional competitors
- bank charges; e.g., fixed charges, loan interest payments
- changes in tax regulations that may affect the business
- record keeping procedures; e.g., computerized inventory systems
- business profit/loss status.

Suggested Activities/Community Partnerships

1. As a class project, survey the small businesses within a one kilometre radius of your school. Compile and analyze the findings to the following questions:

   - How many small businesses are there?
   - Categorize the small businesses according to the occupational cluster to which they most closely belong.
   - What is the average number of employees in the businesses surveyed?
   - What is the average length of time the businesses surveyed have been in operation?

   Use Resource 59, "Survey of Small Businesses" to record your data.

2. Use Resource 60, "Characteristics of Successful Entrepreneurs", to compare your own abilities and interests with the traits described. Which traits match your abilities? Which do not? (Note: Teachers may want to review components of Unit 1, "Introductory Skills", and Unit 2, "Organizational Skills", as part of this activity.)

3. a. Discuss the issue of being an entrepreneur from two perspectives:

      - why I think I can be an entrepreneur
      - why I think I cannot be an entrepreneur.

   b. Working in small groups, take turns suggesting why you think each member of the group would/would not make a good entrepreneur. Support your statements with reference to traits.

4. Invite two or more local entrepreneurs to discuss:

   - The advantages/disadvantages of being an entrepreneur
   - The traits they consider to be necessary to be an entrepreneur
   - The types of persons who should/shouldn't consider becoming an entrepreneur
   - Can people learn or be taught how to be an entrepreneur?
   - Are entrepreneurial abilities inherited or are they learned? Which, if any, may be inherited? Which, if any, may be learned?

5. Risk taking is said to be an important trait of entrepreneurs. What type of occupational risks would an entrepreneur take?

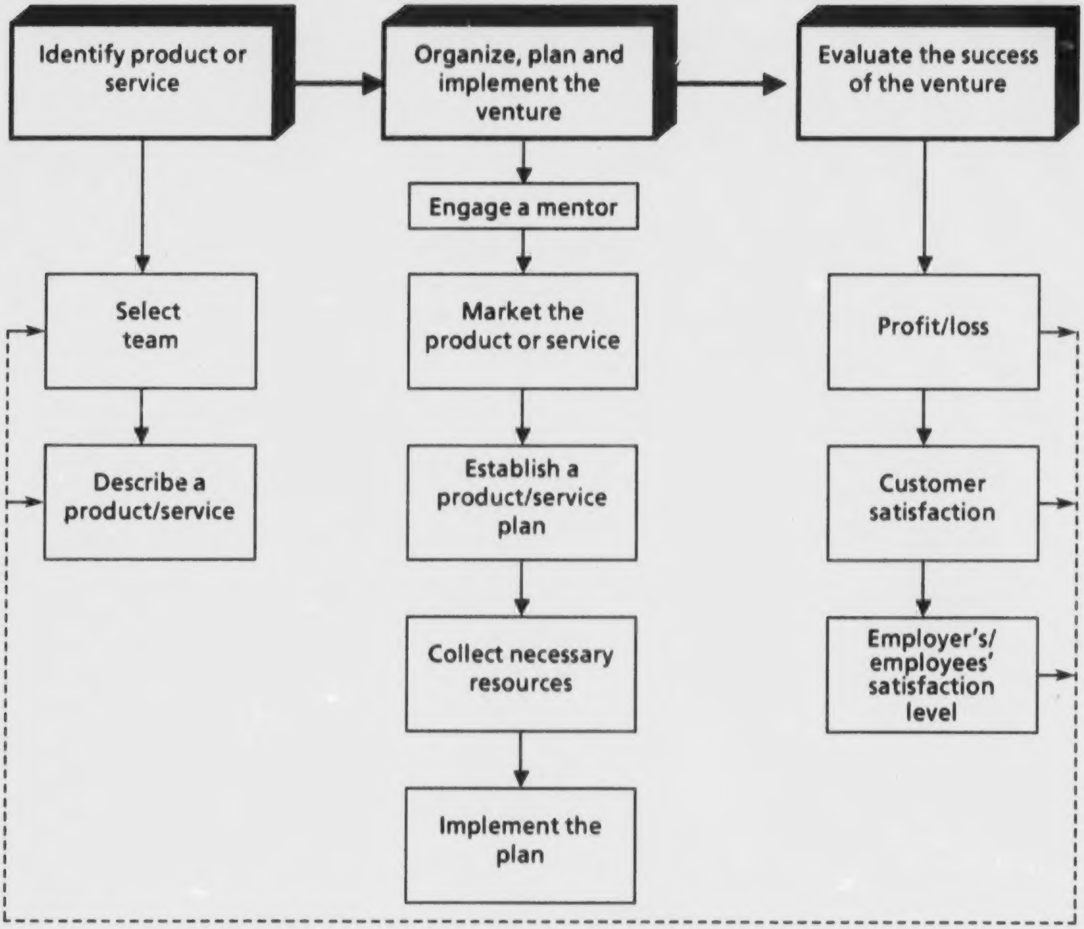
6. Invite local business owners to discuss how they started their operations, the challenges they faced and what they would do differently if they had to start a new business.

   a. Which local entrepreneur(s) do you most admire? Why?

   b. Read the local newspapers and journals and make a copy of articles and stories that relate to entrepreneurial successes and failures. Make a scrapbook of the items or share them with classmates by attaching them to a class bulletin board.

3. STEPS IN STARTING A SMALL BUSINESS

Businesses differ, however, the steps required to start a small business are similar. The following model may be used to introduce the basic steps in starting a small business.


Identify product or service
Organize, plan and implement the venture
Evaluate the success of the venture
Engage a mentor
Select team
Describe a product/service
Market the product or service
Establish a product/service plan
Collect necessary resources
Implement the plan
Profit/loss
Customer satisfaction
Employer's/ employees' satisfaction level

Resource 61, "Entrepreneurship: Suggested Teaching Strategies" may be useful when planning for instruction in this unit.

Suggested Activities/Community Partnerships

1. Read *Working: Today and Tomorrow*:

   - Chapter 3, "Volunteer Work" (page 36)
   - Chapter 5, "Where People Fit In" (pages 67–69)
   - Chapter 5, "How Businesses are Organized" (pages 69–72).

2. Discuss with classmates and community partners:

   a. Each of the following sets of skills are important. Which are most important when considering starting a small business? List them in priority order and give reasons for your ordering.

      - people management skills
      - a business plan
      - money management skills
      - technical/service skills.

b. Would you rather purchase an existing business or start a new business? Why?

c. What are the advantages/disadvantages of the following types of business:

- sole proprietorship?
- general proprietorship?
- incorporated business?

3. Each type of business has its own particular operating costs, cash flow and projected profit margins. Discuss:

   - What are the known costs of operating a small business?
   - What might be some of the unanticipated costs?
   - What profits/losses can be expected after six months? After one year?

4. Invite a community partner from a local bank, trust company or loan company to discuss the financing of small business operations, including:

   - anticipated costs
   - unanticipated costs
   - handling profits and losses over the short and long term.

E 4. INITIATING A SMALL BUSINESS

Working alone or as a member of a group, students will set up a small business by following an appropriate procedure such as the one described below:

Develop a Business Plan

1. a. Each student group engages in a different type of venture; e.g., sales, production, service. (Where student numbers and interests permit, each of these components may be handled by individuals within each group. This strategy permits each student to experience and assume sole responsibility for a task while retaining responsibility to work as a member of a team.)

   OR

   b. Involve all students in a single business venture. In this situation, two or more students take responsibility for a specific segment of the business plan.

   In both strategies, being able to take individual and group responsibility are primary learning objectives.

   Where possible, obtain a mentor for each project. The mentor should be willing to give advice but not take over the project.

2. Have each group of students use a problem-solving/decision-making model to:

   - identify the business venture and ensure that it is practical given restraints of time and resources
   - identify the resources needed
   - develop a flow chart to lay out the strategies to be used.

E – Elective

Implement the Business Plan

Using a problem-solving/decision-making process at each stage of the implementation:

1. Establish a production schedule to indicate:
   - time needed to produce each product
   - time needed to perform each service.
2. Consider alternative marketing strategies. Select the most appropriate strategy(ies).
   - posters
   - displays
   - flyers
   - telephone sales
   - advertisements
   - networking
   - radio announcements (school P. A. system)
   - door-to-door sales/contacts
3. Produce the product or develop the service.
4. Market the product or service:
   - implement the most appropriate strategy
   - use other strategies as necessary.
5. Sell the product or service.

Evaluate the Business Venture

1. Evaluate the success of the venture in terms of:
   - profit
   - number of satisfied customers
   - numbers of repeat orders.
2. Consider what each group would do differently if they were to repeat the same business venture.

Keep Records

1. Maintain a log of all activities performed.
2. Keep financial records using a simple bookkeeping format.
3. Calculate percentage of profit and loss on each sale or service.
4. Calculate profit and loss from different production or service schedules.

Suggested Activities/Community Partnerships

1. During and at the conclusion of each business venture discuss: How does it feel to be in business for yourself? To be your own boss?
2. Project your feelings and learnings to possible future careers. Discuss:
   - I do/do not want to be an entrepreneur. Why?
   - Being an entrepreneur makes me. . . .
3. Ask the mentor to provide the group with feedback on their performance. Where appropriate, have the mentor discuss a given group's performance with the whole class.

Use Resource 62, "Certificate of Entrepreneurship", as a guide to produce a local school certificate for each student who participates in a business venture. This will serve as a reminder and reinforcement of the knowledge gained and the skills and attitudes developed through this learning activity.

The following resources may be of use when planning the instruction of this unit:

Are You Cut Out to Be an Entrepreneur?
Alberta Career Development and Employment, 1988

Available from:
Learning Resources Distributing Centre
12360 - 142 Street
Edmonton, Alberta
T5L 4X9
Telephone: 427-2767

Alberta Economic Development and Trade: Small Business and Industry Division publish a series of booklets related to entrepreneurism. These include:

- *Starting a Small Business*
- *Financing a Small Business*
- *Marketing for a Small Business*
- *Operating a Small Manufacturing Business*
- *Operating a Small Retail Business*
- *Operating a Small Service Business*
- *Selecting a Small Business Computer System*
- *Bookkeeping for a Small Business.*

These publications are available from the following Alberta Economic Development and Trade Regional Offices:

CALGARY
5th Floor
999 - 8 Street SW
Calgary, Alberta
T2R 1J5
Telephone: 297-9818 (Calgary Southern Region)
297-8920 (Calgary Rural)

CAMROSE
5005 - 49 Street
Camrose, Alberta
T4V 1N5
Telephone: 679-1235

EDSON
Room 204
Provincial Building
111 - 54 Street
Edson, Alberta
T0E 0P0
Telephone: 723-8229

GRANDE PRAIRIE

Room 1401
Provincial Building
10320 – 99 Street
Grande Prairie, Alberta
T8V 6J4
Telephone: 538–5230

LETHBRIDGE

Bag Service 3014
416 Stafford Drive, South
Lethbridge, Alberta
T1J 4C7
Telephone: 381–5414

MEDICINE HAT

Provincial Building
346 – 3rd Street, SE
Medicine Hat, Alberta
T1A 0G7
Telephone: 529–3630

PEACE RIVER

Bag 900, Box 3
10122 – 100 Street
River Drive Mall
Peace River, Alberta
T0H 2X0
Telephone: 624–6113

RED DEER

3rd Floor
Provincial Building
4920 – 51 Street
Red Deer, Alberta
T4N 6K8
Telephone: 340–5300

ST. PAUL

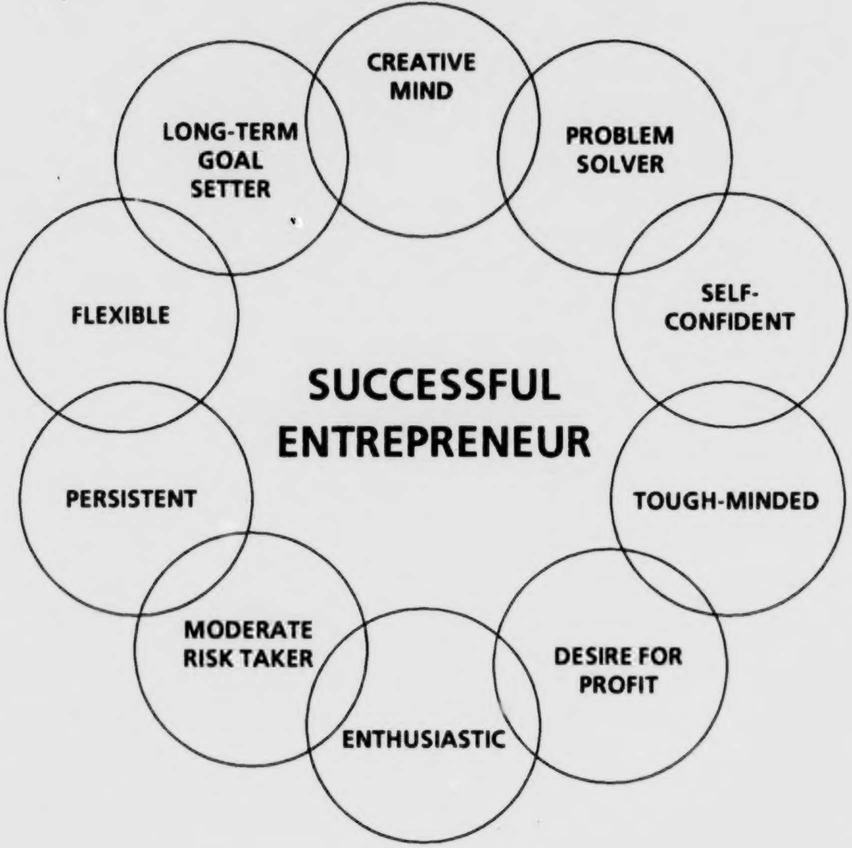
Room 412
Provincial Building
5025 – 49 Avenue
St. Paul, Alberta
T0A 3A4
Telephone: 645–6358

SURVEY OF SMALL BUSINESSES

1. Number of small businesses within a one kilometre radius of the school. ____________________
2. List two examples of small businesses surveyed in each occupational cluster.
3. List the number of employees in each business surveyed.
4. Average length of time listed businesses have been in operation. ____________________

Occupational Cluster	Name of Businesses	Number of Employees	Period in Operation
Agribusiness			
Business and Office Operations			
Construction and Fabrication			
Creative Arts			
Natural Resources			
Personal and Public Services			
Tourism and Hospitality			
Transportation			

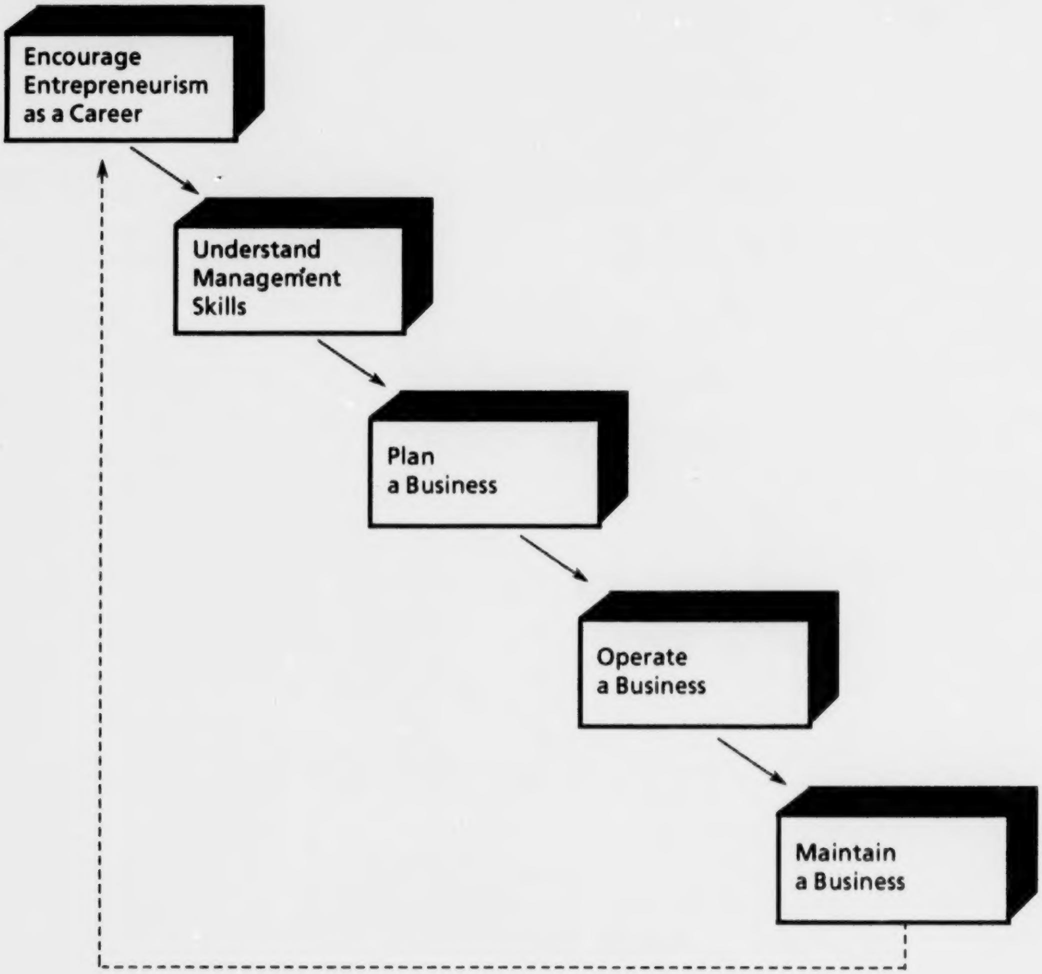
CHARACTERISTICS OF SUCCESSFUL ENTREPRENEURS


CREATIVE MIND
PROBLEM SOLVER
SELF-CONFIDENT
TOUGH-MINDED
DESIRE FOR PROFIT
ENTHUSIASTIC
MODERATE RISK TAKER
PERSISTENT
FLEXIBLE
LONG-TERM GOAL SETTER
SUCCESSFUL ENTREPRENEUR

From *Entrepreneurship in the Alberta Curriculum: A Monograph*. Copyright by Alberta Education, 1988.

ENTREPRENEURSHIP: SUGGESTED TEACHING STRATEGIES

Enterprise and entrepreneurial awareness are evolving educational dimensions. In recent years, educators and representatives from business and industry have cooperated to develop policies and plans to teach entrepreneurial skills. The basic program-development model may be presented in flow chart form as:


Encourage Entrepreneurism as a Career
Understand Management Skills
Plan a Business
Operate a Business
Maintain a Business

As entrepreneurial skill development is an ongoing process, the concepts, skills and attitudes introduced at each stage should be reinforced in subsequent stages.

SUGGESTED TEACHING STRATEGIES

- Emphasize the importance of practical skills training in the areas of enterprise, assertiveness, goal setting, small group presentations and listening skills.

- Initiate and encourage students to identify potential problem situations and attempt to deal with them. Form student task forces or "quality circles" to study the problem and recommend solutions.

- Invite business people to your classroom/lab and visit different business operations.

- Emphasize project work. The involvement of a committee or a project team is often an effective way to handle key problem-solving/decision-making activities.

- Involve students in setting group goals and accountabilities. Evaluate the students on their contribution to the group effort as well as on the end product. Encourage students to evaluate and discuss how the group approached the project and to recognize effective/ineffective group processes.

- Create assignments that encourage students to communicate with business people or visit the workplace to gather data.

- Encourage students to write letters and reports that praise, deliver tactful criticism or ask for information. Emphasize concise writing: short and to the point.

- Involve students as leaders in class or group activities; e.g., supervisors, managers. Encourage students to lead a meeting and to speak up when they hold a different point of view.

- Encourage students to write specific and measurable goals for themselves. That is, be able to set realistic short- and long-term goals as well as take action and meet deadlines.

- Involve students in developing a classroom/lab management system that puts the responsibility for correction on the students.

- Involve students in determining realistic incentives and rewards for desirable behaviour. Find creative ways to make productive behaviour "pay". Have students identify the various incentive systems used by business and industry to improve safety practices, increase production, reduce work-related accidents and injuries.

The following ventures are examples of entrepreneurial activities that may be undertaken in the context of the eight occupational clusters.

Agribusiness

- lawn and garden care
- bedding plant sales
- basic lawn tools clean-up and maintenance.

Business and Office Operations

- concession operation at a school dance or sports event
- telephone answering or messenger service
- courier service.

Construction and Fabrication

- construct and sell:
  - wooden products
  - metal products
- handyperson services.

Creative Arts

- photographic services; e.g., takes photographs, enlarges negatives
- craft production and sales.

Natural Resources

- firewood sales
- make specialized paper products from wood pulp.

Personal and Public Services

- care services for the aged
- child care services
- beauty care services
- laundry/ironing service.

Tourism and Hospitality

- food production and sales; e.g., sandwiches, baked goods
- janitorial services
- window cleaning
- paper/flyer deliveries
- pet minding/sitting.

Transportation

- car wash service
- basic small-motor maintenance
- storage service.

_______ SCHOOL

CERTIFICATE OF ENTREPRENEURSHIP

STUDENT: ______________________________

Has successfully participated in a small-business venture project

Name of project: ______________________________

19__

Teacher: ____________________ **Principal:** ____________________

9. COMMUNITY PARTNERSHIPS

Broadly defined, "a community partnership" is an agreement between a school and the private sector to a mutually acceptable set of purposes and a means for achieving such purposes. **Community partnership is based on the belief that educators can enhance students' learning experiences by bringing the community into the school and by taking the students out into the community.**

As students become increasingly involved in community partnerships in their schooling, the first-hand experiences enhance their appreciation of the need for basic computational, communication and social skills in order to achieve on-the-job success. As students see the increased need and relevance of acquiring these skills, they become more motivated to achieve.

The primary interactive functions of community partnerships are to stimulate students' interests and to assist them to:

- learn about life
- learn about careers
- learn how to learn
- learn by doing
- learn about others
- learn about self

Community partnerships have two dimensions:

- **In-school partnerships:** guest presentations, demonstrations, customer services, etc.
- **Field experiences:** students engage in job shadowing and other on-the-job learning experiences within the community.

Both dimensions are integral components of each course in the Integrated Occupational Program. By the 36-level, however, increased emphasis should be given to the field experience dimension. Through on-the-job experiences, students may be better able to see the need for and relevance of their schooling and to develop concepts, skills and attitudes related to successful entry into the workplace, including the ability to demonstrate:

- good work habits
- safety and sanitation practices
- pride in self
- pride in work
- respect for others
- respect for the property of others.

At the 36-level, community partnerships should comprise no less than forty per cent of each occupational course.

The concepts, skills and attitudes related to community partnerships developed in this unit reinforce those described in Unit 1, "Introductory Skills", and Unit 2, "Organizational Skills". These include:

1. Prepares for employment through community partnership activities.
2. Demonstrates appropriate work habits.
3. Demonstrates effective human relations techniques in the workplace.
4. Practises safety in the workplace.
5. Demonstrates acceptable verbal and non-verbal communication skills.
6. Practises personal and public hygiene procedures.

7. Demonstrates entry-level competency in tools and equipment usage.
8. Uses supplies correctly.
9. Follows good storage practices.
10. Demonstrates pride in work.
11. Demonstrates willingness to work.
12. Demonstrates respect for others.
13. Follows accepted principles and procedures.
14. Recognizes opportunities for further education/training.

RESOURCES

STUDENT LEARNING RESOURCES

- Student workbook (1992) available for each 36-level occupational course.
- *Working: Today and Tomorrow.* Canadian Edition. Toronto, Ontario: Irwin Publishing, 1990.

The major concepts, skills and attitudes related to community partnerships may be correlated with the following sections of the student resource:

- Chapter 3, "Work Experience" (pages 35–36)
- Chapter 6, "Cooperative Education" (pages 79–82)
- Chapter 6, "On-the-job Training" (pages 84–85).

Previously cited chapters may be reviewed in the context of the job search process.

TEACHING RESOURCES

- Resource 63, "Community Partnership Evaluation Form (Teacher)"
- Resource 64, "Community Partnership Evaluation Form (Student)"
- Resource 65, "Community Partnership Evaluation Form (Community Partner)"
- *Integrated Occupational Program Information Manual for Administrators, Counsellors and Teachers.* Alberta Education, 1991.
- *Manual for Cooperative Work Study Programs.* The Cooperative Career Work Education Association of Canada, Guidance Centre, University of Toronto, 1987.
- *Organizing an Alberta Career Day: A Guide for Teachers, Counsellors and Administrators.* Alberta Education, 1986.
- Community partners.

1. PREPARING FOR THE TRANSITION

Throughout the Integrated Occupational Program, students will have participated in a variety of community partnership activities. Each partnership activity should be designed to enhance students' learning opportunities and experiences and to prepare them for their transition to either the world of work or to other educational/training institutions. The following statement is contained in the *IOP Occupational Component 16–26–36 Program of Studies.*

Each of the occupational courses in the Integrated Occupational Program is designed to enable students to develop essential concepts, skills and attitudes in the context of one or more occupational clusters.

In Grades 8 and 9, IOP students will have gained AWARENESS of the eight occupational clusters addressed in the occupational component of the program through their participation in an assortment of practical arts learning experiences.

In 16-level courses, students will have EXPLORED potential career opportunities within the eight occupational clusters. Students in 26-level courses will have narrowed their career focus and will have selected an ORIENTATION in two or more related occupational areas. Students in 36-level courses narrow their career focus even further and develop skills in PREPARATION for their transition to either the world of work or to other educational/training institutions.

2. LEARNING BY DOING

Whereas in previous grades, students may have been more involved with observing tasks through job shadowing and other short-term on-the-job learning activities, at the 36-level, field experiences should provide students with a variety of opportunities to learn by doing -- to be actively involved in performing meaningful work including working as a volunteer.

Increased involvement in the workplace enables students to gain firsthand knowledge of the human and work processes associated with particular occupations and workplaces.

3. EVALUATING COMMUNITY PARTNERSHIPS/FIELD EXPERIENCES

Evaluation of community partnerships consists of two inseparable aspects. One is the evaluation of the partnership program, the other is the evaluation of a student's behaviour and performance after participating in a partnership.

Evaluation of community partnerships should focus on:

- the adequacy of the partnership in serving the educational needs of students
- the strengths and weaknesses of the partnerships
- the achievement of objectives as outlined
- the benefits of the partnerships.

Evaluation of each partnership should involve all concerned:

- the student
- the teacher
- the community partner.

- The student's evaluation may include:
  - a self-evaluation of the work placement, outlining areas of strength, areas where improvement is needed, etc.

- The teacher's/coordinator's evaluation may include:
  - assessing the student's in-class assignments and participation
  - reviewing the student's log sheets and diary on a regular basis
  - visiting and observing the student at work
  - keeping anecdotal records after each visit
  - reviewing the student's progress with the supervisor
  - reviewing the student's progress with the student
  - taking into account the student's self-evaluation of progress
  - calculating a final mark for reporting purposes.

- The community partner's evaluation may include:
  - observing the student's performance on the job, and giving immediate feedback to the student
  - completing written progress reports or checklists
  - assessing activities related to projects and assignments from the in-school component
  - reviewing work and employability skills
  - completing a final evaluation.

The following resource may be used as is, or adapted to evaluate community partnership activities.

- Resource 63, "Community Partnership Evaluation Form (Teacher)"
- Resource 64, "Community Partnership Evaluation Form (Student)"
- Resource 65, "Community Partnership Evaluation Form (Community Partner)"

Suggested Activities/Community Partnerships

1. Suggestions

   The *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide*, as well as this document, provide suggested community partnership activities including a number that focus on providing students with field experiences. Teachers are encouraged to complement and supplement these community partnerships with others that best meet the needs and interests of their students and the availability of partners in the community.

2. Evaluation

   At the conclusion of each field experience, a copy of Resource 63, "Community Partnership Evaluation Form (Teacher)", should be used by the community partners and the teacher to record the student's performance. The form may also be used to encourage students to evaluate their own performance and to assess their progress over time. In addition, Resource 64, "Community Partnership Evaluation Form (Student)" may be used by students to indicate their level of satisfaction with the placement.

3. Recognition of Community Partners

   The services and support provided by partners should be acknowledged with expressions of appreciation from students, teachers and parents. Some ideas for providing recognition include:

   - hosting special recognition events for partners and/or volunteers; e.g., brunch, lunch
   - featuring partners and/or volunteers in the school newsletter or newspaper
   - welcoming them into the staff room
   - inviting community partners to attend special events in the school
   - designing greeting cards at special times of the year

- referencing the work of partners during open houses and on parents' night
- recognizing the commitment and dedication of community partners through writing about them in the local community paper
- presenting all partners with a framed Certificate of Appreciation suitable for hanging in their front office
- sending letters of appreciation from students and teachers. Samples:

STUDENT THANK YOU LETTER
(on School Letterhead)

Date

Employer's Official Title
Name of Business/Organization/Individual
Address (including postal code)

Dear Mr./Mrs. ________:

I would like to thank you for providing me with the opportunity to learn more about ________.

(Second paragraph could mention specific skills learned and person(s) who were particularly helpful.)

(The final paragraph should express personal appreciation of the value of the experience.)

Yours sincerely,

Name
Home Address
Telephone No.

SCHOOL/TEACHER THANK YOU LETTER
Community/Business Partners

Dear ________:

We wish to express our sincere appreciation for your involvement as a Partner in Education. We understand the time and commitment necessary in providing students with a real life learning situation. This coordinated effort to prepare our students represents an investment that will never stop paying dividends. Our dividend will appear in the form of a more literate society, better prepared employees and a country that is proud of its schools. Thank you for your part in this educational endeavour.

Yours sincerely,

4. Organizing a Career Day

With the cooperation of others (e.g., superintendent, principal(s), community partners) organize a career day. The main purpose of a career day is to bring together speakers and exhibitors from a variety of areas including business, industry, further education and training and have them make presentations to students and respond to students' questions.

A detailed planning model for organizing a career day is contained in the following resource:

- *Organizing an Alberta Career Day: A Guide for Teachers, Counsellors and Administrators*, 1986, Alberta Education.

  This resource may be obtained from:

  Learning Resources Distributing Centre
  12360 – 142 Street
  Edmonton, Alberta
  T5L 4X9
  Telephone: (403) 427-2767

COMMUNITY PARTNERSHIP EVALUATION FORM

(Teacher)

Placement Location: ______________________________

Employer/Supervisor: ______________________________

	High Medium Low
	5 ——— 1
1. Partner demonstrates an understanding of role: a. Familiarizes student to the workplace b. Introduces student to other workers c. Clarifies expectations and standards of performance/appearance	
2. Partner facilitates an effective learning environment: a. Demonstrates interest in the Integrated Occupational Program b. Takes the time needed for consultations c. Encourages students' initiative and independence d. Provides ongoing feedback – to student – to teacher e. Encourages new, meaningful learning experiences f. Provides necessary resources	
3. Overall evaluation of the placement a. Effective learning environment b. Placement meets necessary standards – Health – Safety c. Organizing commitment to the program	
4. Other Comments ______________________________ ______________________________ ______________________________	

Teacher/Coordinator: ______________________ Date: ______________

Community Partner: ______________________ Date: ______________

COMMUNITY PARTNERSHIP EVALUATION FORM

(Student)

1. Do you feel that this experience:

   a. has been of benefit to you?
   Yes ___ No ___
   How? ______________________ Why not? ______________________
   ______________________ ______________________
   ______________________ ______________________

   b. has helped to prepare you for the world of work?
   Yes ___ No ___
   How? ______________________ Why not? ______________________
   ______________________ ______________________
   ______________________ ______________________

   c. has expanded your learning opportunities?
   Yes ___ No ___
   How? ______________________ Why not? ______________________
   ______________________ ______________________
   ______________________ ______________________

2. What difficulties arose?
____
____
____

3. What strengths/abilities did you discover in yourself as a result of this experience?
____
____
____

4. Do you have any suggestions for improving this program?
____
____
____

Placement Location: ______________________ Date: ______________________

Employer/Supervisor: ______________________ Student: ______________________

(signature) (signature)

COMMUNITY PARTNERSHIP EVALUATION FORM

(Community Partner)

STUDENT ____________________

COMMUNITY PARTNER ____________________

TYPE OF BUSINESS ____________________

Period of Partnership
From ________ to ________

	PERFORMANCE LEVEL			
	High	Med	Low	N.A.
1. **Career Awareness** a. Appreciates the nature of the industry/business b. Identifies variety of jobs/careers in occupational cluster c. Appreciates the need for job search skills d. Appreciates the job requirements e. Dresses appropriately for the job				
2. **Human Relations** a. Maintains good relations b. Communicates effectively c. Practises ethical behaviour d. Demonstrates dependability e. Demonstrates interest in area f. Adheres to work standards g. Displays a positive attitude h. Respects the opinions and property of others				
3. **Core Skills** a. Follows instructions/directions b. Completes necessary forms c. Uses metric/imperial measures d. Demonstrates entry-level math functions e. Demonstrates entry-level tools and equipment competencies f. Demonstrates entry-level ability to handle supplies				
4. **Work Skills** a. Demonstrates appropriate competencies b. Demonstrates pride in work c. Demonstrates entry-level sanitation practices d. Demonstrates entry-level safety practices e. Shows initiative f. Shows creative ability g. Practises effective time management				
5. **Entrepreneurship** a. Recognizes possible self-employment opportunities				
6. **Other Comments**				

Teacher: ____________ Student: ____________ Community Partner: ____________

10. WORK SKILLS

The work skills identified in the *IOP Occupational Component 16–26–36 Program of Studies* are generic to each of the courses that comprise the occupational component of the Integrated Occupational Program.

The work skills addressed in each occupational course provide the contexts in which the generic skills described in previous units are learned and reinforced. The work skills expanded upon in each Grade 12 occupational course include:

A. Identification

   1. Selects a career path
   2. Recognizes equipment, tools and supplies

B. Equipment, Tools and Supply Usage

   1. Uses equipment, tools and supplies correctly

C. Work Standards

   1. Works to accepted standards

D. Supply Management

   1. Manages supplies efficiently

E. Work Area Management

   1. Maintains a professional work area

RESOURCES

STUDENT LEARNING RESOURCES

- Student workbook (1992) available for each 36-level occupational course.

A summary work skills profile, specific to each occupational course, is included in each student workbook. These profiles incorporate the generic work skills listed above and are designed to accommodate students' differences in interests, and to provide teachers with the flexibility to select, adapt and further develop course content to meet student needs, interests and resources.

- *Working: Today and Tomorrow.* Canadian Edition. Toronto, Ontario: Irwin Publishing, 1990.

(This text may be used to review, reinforce and apply previously developed concepts, skills and attitudes.)

TEACHING RESOURCES

- Resource 66, "How to Become an Apprentice"
- Resource 67, "Career Development Centres"
- Resource 68, "Apprenticeship Trades"
- Resource 69, "Self-evaluation Chart: Work Habits"
- Resource 70, "Self-evaluation Chart: Interpersonal Competencies"
- Community partners.

Suggested other learning resources, specific to each course, are identified in the final section of this document, Teacher Support Material.

APPRENTICESHIP, DESIGNATED TRADES AND OCCUPATIONS

Some students may choose to enter an apprenticeship. In Alberta, there are 53 designated trades and over 100 technician occupations in the trades, occupations and technologies. Resource 66, "How to Become an Apprentice" outlines the procedure for applying for an apprenticeship. Additional information may be obtained from any of the Career Development Centres. (See Resource 67, "Career Development Centres".)

Resource 68, "Apprenticeship Trades" identifies and describes the apprenticeship trades, the length of each apprenticeship, periods of required technical training, and minimum level of education required for entry into each apprenticeship.

In some instances, students who complete approved courses in high school may receive some advanced standing toward an apprenticeship. For specific details, contact the Career Development Centre.

An outline description of Alberta's apprenticeship system, including profiles of apprenticeship trades, may be found in the following resources:

- Apprenticeship Opportunities
- Alberta's Apprenticeship Program, 1988.

Current issues of these resources may be obtained from any Career Development Centre (see Resource 67 for addresses of regional centres).

Effective January 1, 1992, the new *Apprenticeship and Industry Training Act,* 1991 came into force. This act and its related regulations identify the following categories of trades and occupations:

- Designated Trades
  - Compulsory Certification Trades
  - Optional Certification Trades
- Designated Occupations.

The designation of a trade or occupation may change over time. Consult any Career Development Centre for current information.

Suggested Activities/Community Partnerships

1. In each 36-level occupational course, teachers are encouraged to:
   - review and reinforce the concepts, skills and attitudes addressed in the 16- and 26-level occupational courses
   - use selected activities from the 16- and 26-level student workbooks to develop further student competencies
   - plan cooperatively with community partners to ensure that students have opportunities to develop abilities that will enable them to enter the work force and/or access further education/training; e.g., apprenticeship
   - provide opportunities for students to acquire both generic and work skills on the job.

   (Note: At the 36-level, a minimum of 40% of the instructional time should be devoted to community partnership activities.)

2. The following resources may be used by students to evaluate their performance on the job:
   - Resource 69, "Self-evaluation Chart: Work Habits"
   - Resource 70, "Self-evaluation Chart: Interpersonal Competencies".

HOW TO BECOME AN APPRENTICE

1. Contact a local office of Alberta Career Development and Employment, Apprenticeship and Trade Certification Branch. (See Resource 67 for a listing of local offices.)

2. Obtain information on the entrance requirements for the trade that interests you.

3. To apply for an apprenticeship:

    a. present a transcript of your school marks to the Apprenticeship and Trade Certification Branch

    b. be prepared to take an entrance examination, for some trades (see Resource 68, "Apprenticeship Trades")

    c. find an employer who employs journeymen in the trade of your choice and who is willing to accept you. Approach several firms, and if more than one offer of apprenticeship is obtained, select the employer who provides the best training opportunities and working conditions*

    d. obtain apprenticeship application forms from the Career Development Centre

    e. complete the forms and submit them along with supporting documents; e.g., transcript, entrance examination marks.

4. Arrange to start your apprenticeship with the employer.

* The brochure, *Apprenticeship Opportunities*, states:

> The more education you have the better your chances are of being hired as an apprentice, succeeding in your training, and advancing in the organization.

CAREER DEVELOPMENT CENTRES

Northern Region

Calling Lake	331-3911
Fort Chipewyan	697-3925
Fort McMurray	743-7194
Fort Vermilion	927-3777
Grande Prairie	538-5348
High Level	926-2661
High Prairie	523-6630
Janvier	559-2220
Peace River	624-6211
Slave Lake	849-7220
Trout Lake	869-3991
Wabasca	891-3930

Central Region

Ardmore	826-6415
Bonnyville	826-6142
Camrose	679-1275
Drayton Valley	542-6993
Edmonton	427-3722
Hinton	865-8293
Lac La Biche	623-5338
Lloydminster	871-6480
St. Paul	645-6383
Vermilion	853-8150
Wetaskiwin	352-1357
Whitecourt	778-7132

Sothern Region

Calgary	297-6526
Lethbridge	381-5380
Medicine Hat	529-3586
Pincher Creek	627-3922
Red Deer	340-5151
Rocky Mountain House	845-8303

APPRENTICESHIP TRADES

Name of Trade	Description	Trade No.	Length of Apprenticeship (Periods)	Technical Training Weeks (Per Period)	Minimum Education (Grade or Subject)
Agricultural Mechanic	Services, repairs, and sets up agricultural machines.	32	2	10-10	9
Appliance Serviceman	Repairs and services household appliances.	23	3	8-8-6	10
Auto Body Mechanic (P) (R)	Repairs and refinishes automobile bodies.	10	3	8-6-6	9
Baker	Makes bread, pastries, cookies, and cakes.	24	3	8-8-8	9
Barber (P)	Cuts, trims, waves, and colours hair; shaves beards, mustaches, etc.	42	2	10-10	10
Beautician (P)	Cuts, trims, waves, and colours hair; gives facial treatments, etc.	43	2	10-10	10
Boilermaker (R)	Builds, tests, and repairs air-tight and liquid-tight containers.	38	3	8-8-8	*
Bricklayer (R)	Lays brick, hollow tile, and concrete block for buildings or other structures.	1	3	12-6-6	9
Cabinetmaker (1)	Builds custom or production-type fixtures and furniture of wood and wood substitutes.	36	4	8-8-8-8	9
Carpenter (R)	Works with wood and wood substitutes in the construction of buildings and other structures.	2	4	8-8-8-8	9
Cement Finisher	Places, finishes, cuts, and repairs concrete.	48	3	8-8-0	9
Communication Electrician	Installs, services, and repairs telephone equipment and related communication systems.	22	4	6-6-6-6	11
Cook (R)	Prepares food and meals in hotels, restaurants, and institutions.	18	3	8-8-8	9
Crane and Hoisting Equipment Operator (P)	Operates tower cranes, mobile cranes and boom trucks to lift and swing material.				
Boom Truck Operator		34	1	4	9
Mobile Crane Operator		34	3	6-0-6	9
Tower Crane Operator		34	2	6-0	9
Electrical Rewind Mechanic	Repairs and rebuilds electric motors, generators, transformers, controls and other electrical equipment.	30	4	8-8-8-8	10
Electrician (P) (R)	Installs, alters, repairs, and maintains electrical systems in buildings to supply heat, light, power, controls, and signal or fire alarms.	3	4	8-8-8-12	Math 20/23
Electronic Technician (P) (R)	Services and repairs radio and television-receiving equipment.	13	4	12-12-6-6	10
Elevator Constructor (P) (3)	Installs, repairs, and maintains elevators, escalators, moving walkways, etc.	97			
Floor Covering Mechanic	Installs many types of resilient and carpet floor coverings in buildings.	29	2	7-6	9
Gas Fitter (P)	Installs piping, appliances, equipment, and controls for the use of natural gas or propane gas as a fuel.	8	3	8-0-8	9
Glassworker (R)	Cuts and installs glass for windows, showcases, and curtain-wall building construction.	25	4	6-6-6-6	9
Heavy Duty Mechanic (P) (R)	Services and repairs construction and other heavy industrial mobile and stationary equipment.	19	4	8-8-8-8	9
Instrument Mechanic (R)	Maintains, services, repairs, and installs measuring and control instruments used in process industries.	31	4	8-8-10-10-12	*
Insulator	Installs insulation materials in commercial and industrial structures.	33	4	6-6-8-0	9
Ironworker	Builds, erects, constructs, and joins structural steel on buildings, bridges, and towers.	40	3	8-8-8	*
Landscape Gardener	Grows, installs, and maintains trees, plants, and grasses in all environments.	47	4	8-8-8-8	9
Lather-Interior Systems Mechanic	Installs metal, plaster lath, and interior finishes in the construction of buildings.	17	3	8-6-8	9
Machinist (R)	Works with metals; operates metal-cutting and shaping machinery.	15	4	8-8-8-8	9
Millwright (R)	Installs and maintains machinery in factories and other production plants.	16	4	8-8-8-8	10
Motorcycle Mechanic (P)	Assembles, services, and repairs two-wheeled single-tracked motor vehicles.	49	4	8-8-6-6	9
Motor Mechanic (P) (R)	Services and repairs automobiles.	9	4	8-8-8-8	9
Painter and Decorator (R)	Applies paint, varnish, and wallpaper to interior and exterior building surfaces, and to other fittings and furnishings.	4	3	8-8-8	9
Partsman	Stores and dispenses automotive, heavy duty, or farm machinery parts.	27	3	8-6-6	10

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Name of Trade	Description	Trade No.	Length of Appren-ticeship (Periods)	Technical Training Weeks (Per Period)	Minimum Education (Grade or Subject)
Plasterer (3)	Applies plaster and stucco including decorative finishes.	5	Training Discontinued		
Plumber (P) (R)	Installs piping, fixtures, appliances, equipment, and controls for water and sanitation purposes.	6	4	8-8-8-8	*
Power Lineman (R)	Constructs, maintains, or operates electrical transmission or distribution systems.	21	3	7-7-7	Math 20
Power System Electrician	Constructs or maintains electrical utility power system and power station equipment, or metering, protection, and control apparatus.	46	4	8-8-9-9	Math 20
Printing and Graphic Arts Craftsman (1)	Prepares, produces, and finishes printed material.	39	4	4-4-4-4	9
Projectionist (3)	Operates motion picture projectors.	95			
Recreation Vehicle Mechanic (P)	Repairs mobile motor homes and recreation vehicles.	45	2	8-8	9
Refrigeration and Air Conditioning Mechanic (P) (R)	Installs and services refrigerating and air conditioning systems.	14	4	8-8-8-8	9
Roofer (R)	Installs and maintains built-up roofs, composition roof coverings, shakes, shingles, and plastic membranes.	28	3	6-6-6	9
Saw Filer	Repairs, sets, and sharpens band saws, chain saws, hand saws, circular saws, and other types of saw blades.	44	4	4-4-4-4	9
Sheet Metal Worker (P) (R)	Designs, fabricates, installs, and repairs ducts and fittings for heating, ventilation, air conditioning, exhaust, and dust collecting systems.	11	4	10-10-10-10	*
Sprinkler Systems Installer (R)	Installs and maintains fixed fire extinguishing systems.	37	4	6-6-6-0	*
Steamfitter–Pipefitter (P) (R)	Installs piping, equipment and controls for hot water, drain, process, and chemical piping in industrial and commercial establishments.	7	4	8-8-8-8	*
Steel Fabricator	Works in the shop fabrication, preparation, layout, assembly, or repair of structural and miscellaneous components or vessels.	26	3	8-8-8	9
Tile Setter	Works with ceramic tile, terrazzo, and marble.	20	3	6-6-6	9
Tool and Die Maker (3)	Manufactures and repairs jigs, fixtures, gauges, dies, molds, press tools, and various types of small mechanical devices.	96			
Transport Refrigeration Mechanic	Installs, repairs, and maintains equipment in mobile units used to haul perishable loads.	41	3	8-8-8	9
Water Well Driller	Drills, installs, and services water wells and installs and services water well pumping systems.	35	2	5-4	9
Welder (P) (R)	Joins metal by fusion using oxyacetylene flame, electric arc, or other welding processes.	12	3	6-8-8	9

* All candidates write an entrance examination.
(1) Training and certification are available in two areas of the trade.
(2) Training temporarily discontinued.
(3) No training available.
(P) Designated proficiency trade.
(R) Red seal trade.
NOTE: Periods vary in length from 1500 to 2100 hours of employment, depending on the trade. For further information, see the regulations for each trade available from Apprenticeship and Trade Certification Branch, Alberta Career Development and Employment.

Male terms have been used in accordance with their use in the **Manpower Development Act.** Women should consider themselves eligible for all trades.

This chart provides the latest available information. Teachers are encouraged to contact a Career Development Centre for possible changes to this information.

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SELF-EVALUATION CHART: WORK HABITS

Name: ____________________ Date: ____________ Course: ______________

	Evaluation Excellent ——— Poor		
Time Management	1	2	3
Arrives on time			
Brings all necessary equipment to class			
Prepares immediately for work			
Performs duties without being asked			
Uses extra time to complete unfinished work			
Considers solutions to problems before asking for assistance			
Completes work on time			
Task Management			
Uses equipment and implements as instructed			
Cleans work area after use			
Performs daily clean-up duties			
Follows lab/class rules and regulations			
Personal Management			
Is well groomed			
Wears clothing appropriate to the task			
Maintains accepted standards of personal and public hygiene			
Safety			
Takes all necessary safety precautions			
Uses appropriate safety devices (clothing, shields, guards, etc.)			

Possible Score: 45 Score Attained:

Student's Signature: Teacher's Signature:

SELF-EVALUATION CHART: INTERPERSONAL COMPETENCIES

Course: ______________________________

Student: ______________________________

Period Covered: ______________________________

Directions: Check the appropriate number to indicate interpersonal competencies during the period noted above. Evaluate only those interpersonal competencies appropriate to this period.

Rating Scale:
5 Excellent
4 Very Good
3 Good
2 Fair
1 Poor

5	4	3	2	1		
					CONFIDENCE	– Believes in self; others' respect and admire
					PERSEVERANCE	– Continues to work until task is completed
					COMPREHENSION	– Pays attention and relates to ideas/situations
					INITIATIVE	– Is self-motivated
					RELIABILITY	– Works without constant supervision
					TACT	– Is sensitive to others' feelings
					LOYALTY	– Supports others with similar values
					ENTHUSIASM	– Demonstrates desire to learn and work
					COOPERATION	– Demonstrates willingness to work as a team member
					ADAPTABILITY	– Adjusts to changes in situations and personnel
					SAFETY CONSCIOUS	– Knows and follows safety rules and regulations
					HOUSEKEEPING	– Maintains tools, equipment and work area
					ORAL EXPRESSION	– Communicates verbally in a clear, logical order
					SOCIABILITY	– Makes friends easily and respects the rights of others
					GROOMING	– Dresses appropriately for a variety of occasions
					LEADERSHIP	– Encourages others to cooperate and be goal directed
					POISE	– Maintains self-control

SIGNATURE: ______________________________ DATE: ____________________

SUGGESTED TEACHING STRATEGIES

A variety of strategies and sample activities useful in gathering, interpreting, recording, evaluating and communicating ideas in the occupational courses are provided with the suggested activities and student resources included in this manual and in the *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide*. In addition, the following strategies can be used effectively to support students in their use of language and thought processes in many areas of each of the occupational courses:

- AVID: A Strategy for Transfer
- Brainstorming
- CARE: A Safety Strategy
- CARING: A Listening Strategy
- CROSSWORD PUZZLE: A Comprehension Strategy
- Descriptive Writing: An Evaluation Guide
- First Letter Mnemonic: A Remembering Strategy
- Flow Charting: A Process Analysis Strategy
- Improving the Instructional Environment
- LEEP, CHECK: Oral Presentation Strategies
- A Guide to Effective Listening
- PMI: An Exploration Strategy
- Positive Self-talk: A Self-concept Building Strategy
- RAP: A Comprehension Strategy
- Reinforcing the Positive
- SCAMPER: An Idea Generating Strategy
- SCORER: A Test-taking Strategy
- Speech Evaluation Guide
- SPOT: A Social Problem-solving Strategy
- SQ3R: A Chapter Attack Strategy
- WIS: A Word Identification Strategy
- Writing Directions: An Evaluation Guide.

A more detailed outline of each of the above strategies follows.

AVID: A Strategy for Transfer

Purpose

- to enable students to transfer concepts, skills and attitudes learned in one course to other courses.

Description of Strategy

A: Academics
V: Vocational
I: Interpersonal
D: Daily living

Procedure

After a strategy has been taught directly, students can be shown how to use the AVID mnemonic as an aid for discussing and formulating academic, vocational, interpersonal and daily living applications of the strategy, or the principles derived from the strategy.

For example, organizational strategies initially taught in the academic "A" course may be discussed and applied to the vocational "V" (dress, materials for the job), interpersonal "I" (coming to appointments on time) and daily living "D" (organized room) areas.

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Brainstorming

Purpose

- to generate a large number of ideas that will lead to more creative problem solving
- to open students up to sharing ideas without fear of criticism
- to enable students to build on each other's ideas.

Procedure

1. Teacher states a specific problem or asks an open-ended question such as . . .
    - What other uses could you find for a ___?
    - In what other ways could you improve a ___?
    - List all the things that are soft and white.
2. Give the rules for "brainstorming":
    - Don't judge ideas during the brainstorming stage
    - Provide a safe environment; accept everything. (Evaluation should be done later as a separate follow-up activity.)
    - Encourage "far out" ideas
    - Build (piggyback) on other ideas
    - Don't stop too soon. Initial responses are often easily recalled from memory and usually are followed by a pause or a slowing down of ideas. Beyond this point, students are beginning to think more deeply. Many ideas are needed before really original thinking takes place. Remember, "quantity comes before quality"
    - Everyone should contribute, including the teacher, to demonstrate divergent thinking and to add encouragement.
3. Restate the problem or question and, as students give their responses, record the ideas, without comment.
4. When sufficient ideas have been recorded, then comment on the number and variety of responses.

CARE: A Safety Strategy

Purpose

- to stimulate students' awareness of the need to follow directions and safe operating instructions in the home, in school, and in the workplace.

Description of Strategy

C – Caution
A – Alertness
R – Responsibility
E – Everyday

Procedure

Students may be asked to:

- brainstorm examples for each letter of the mnemonic to increase the scope of their awareness
- design and produce a poster to display in context the application of the principles of CARE; for example, a student in a crafts and arts course may design a safety graphic and the graphic may be produced by students in a technical crafts course
- give examples of task related CARE activities they perform in the home, at school and in the workplace.

	CARE Activities
In the home	e.g., ensuring that electrical cords/wires are not frayed and damaged • • •
At school	e.g., putting on safety equipment (e.g., goggles, gloves, ear protectors) before using power equipment and tools • • •
In the workplace	e.g., frequently removing debris/waste from the work area • • •

CARING: A Listening Strategy

Purpose

- to improve students' ability to listen effectively.

Description of Strategy

C – Cares about the message
A – Always looks at the speaker
R – Remains comfortably stationed (not fidgeting or moving around)
I – Is quiet (when being spoken to)
N – Notices details (so questions or replies can be formulated)
G – Greets speaker with a clear mind (tries to think only about what's being said)

Procedure

1. During an oral presentation, note situations where students are not attending; i.e., not caring about the presentation, moving about, chattering to each other, working on an assignment. Lead a discussion around what it feels like to talk before a group of people who appear uninterested, and the consequences both to speaker and listener. Then present the "CARING" Strategy.

2. Teach the "CARING" strategy as preparation for an oral presentation unit.

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CROSSWORD PUZZLE: A Comprehension Strategy

Purpose

- to increase students' word recognition ability and their ability to think creatively and sequentially.

Procedure

Step 1: Think of a particular topic and the terms related to that topic; e.g., business – profit, loss, employer, employee, accounts.

Step 2: Write the terms in the grid, interlocking letters as often as possible, going across and down the page.

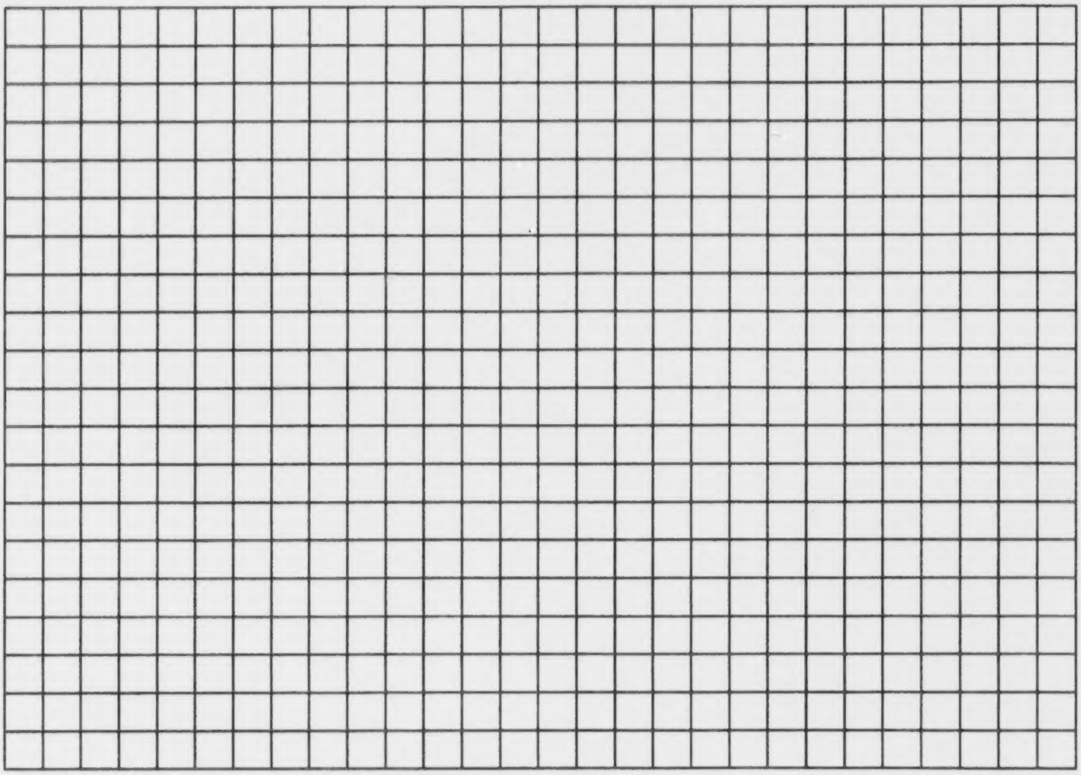
Step 3: Lay another sheet of paper over the grid and trace only those squares that contain letters. Or, with felt tip marker, fill in unused squares to form a dark background.

Step 4: Number the first square of each word going across and down.

Step 5: Number the "clues" or definitions in the same order in which you numbered them on the grid. (Put clues at the bottom of the page or on a separate sheet of paper.)

Step 6: Have students complete the crossword puzzle.

Crossword Puzzle Grid



Descriptive Writing: An Evaluation Guide

Purpose

- to help students to focus on the components of a descriptive writing assignment.

Procedure

The following evaluation guide is given to students before their assigned writing project or task.

Writing Assignment

Your assignment will be marked using the criteria below. Try answering the questions and marking your assignment yourself; then, revise your work to obtain a better mark.

	Possible Score	My Score
1. Did you list facts and opinions? Have you presented them separately?	4	
2. Is each fact and opinion presented in a full sentence? If you read each sentence separately, can you tell what it means without referring to the others?	4	
3. Are any of your statements not observations? Deduct one mark each time you find: • an opinion • an inference • a belief • a suspicion.	5	
4. Did you collect any quantitative data that can be tabulated? Have you presented these in a data table? Be sure your table has:		
• a title	2	
• a heading for each column	3	
• a unit expressed for each.	2	
Total:	20	

Scale Point

- The lists offer little accurate description. The description earns 0–9 points.
- Accurate description has been provided, but either the format of the presentation is weak or a great deal of irrelevant material – opinions, inferences, beliefs, suspicions – has been included. The description earns 10–14 points.
- Accurate description has been effectively presented. Data are appropriately tabulated. The description earns 13–20 points.

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First Letter Mnemonic: A Remembering Strategy

Purpose

- to assist students to remember word lists and other groups of information.

Description of Strategy

F – Form first letters into words (upper case)
I – Include other letters (lower case)
R – Rearrange letters
S – Form a sentence
T – Try it many times

Procedure

Step 1: Form first letters into word, using upper-case letters (acronym).

Example: types of questions – Literal, Inferential, Evaluative, Decoding
LIED or DELI

If this step doesn't work, try Step 2.

Step 2: Include other letters (lower-case).

Example: Musical Instruments (Woodwinds).

F	O * r	C	E	P * t	S
Flute	Oboe	Clarinet	English Horn	Piccolo	Saxophone

* Lower-case letters help to form the word (mnemonic), **but do not** stand for a key word.

If this step doesn't work, try Step 3.

Step 3: Rearrange letters.

FOrCEPtS above was formed by rearranging the letters F P C O E S and adding r and t. Step 3 usually follows Step 2 in that for most word lists the first letters do not form a word without some rearrangement. If Step 3 doesn't work, try Step 4.

Step 4: Sentence formation (acrostic).

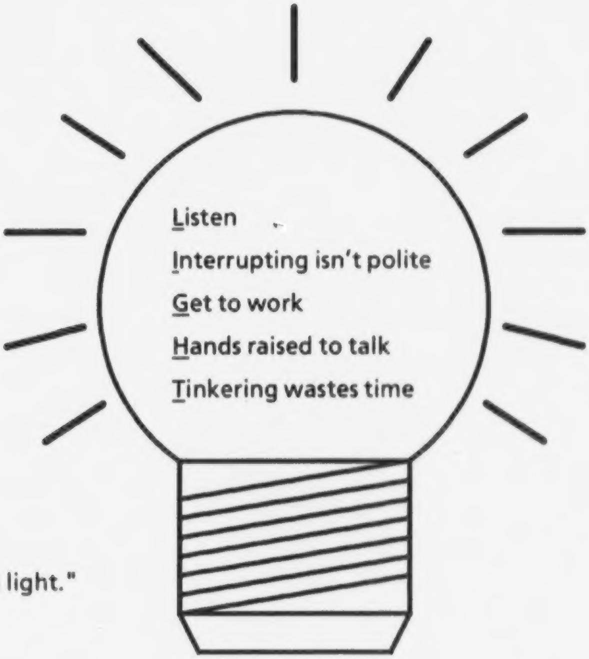
Father	Played	Clarinet	Or	English (horn)	Softly
Flute	Piccolo	Clarinet	Oboe	English Horn	Saxophone

Step 5: Try it many times. This step is a reminder to manipulate letters and words until a mnemonic is formed. Note the use of the word **F I R S T** as a mnemonic (Form, Include, Rearrange, Sentence, Try) to help remember this strategy.

Suggested Applications

- as a strategy to remember key words that relate to key concepts for an exam (studying strategy)
- to aid retention of strategies generated or taught
- home applications: shopping lists, things to do, etc.
- use first-letter mnemonic strategy to aid students in remembering classroom rules.

Example: **L I G H T** Strategy*


Listen
Interrupting isn't polite
Get to work
Hands raised to talk
Tinkering wastes time

"Flip a switch and be bright like a light."

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Flow Charting: A Process Analysis Strategy

Purpose

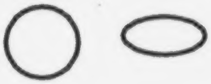
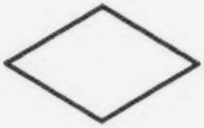
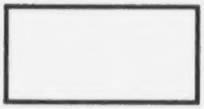
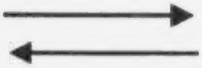
- to enable students to identify the order and sequence of steps in a procedure or process.

Description of Strategy

Students are taught to analyze the process involved in completing a task by constructing a flow chart that enables them to break the process into sequential steps, which then can be followed to complete the task.

A flow chart consists of a set of symbols connected by lines, which usually illustrate the sequential progression of steps involved in a procedure or activity.

Symbols used are:

A circle or an oval		start, stop
A diamond		question, decision
A rectangle		action
An arrow		directional lines

Procedure

1. Provide students with a task or have them identify a task.
2. Identify the components of the task.
3. List the components in sequence.
4. Draw a flow chart to show the major components of the task in sequence.

Improving the Instructional Environment

Purpose

- to enhance students' learning by improving the instructional environment.

The instructional environment plays a vital role in the development of creative thinking. Creative thinking can be fostered by:

- using appropriate questioning techniques
  - open-ended questions, ambiguous problems; e.g., find 1000 of something
- providing openness
  - respect, acceptance and delight in unusual ideas
- providing enrichment activities
  - exciting materials that stimulate thinking
- allowing time for production
  - frequent opportunities for creative production
- providing time for idea development
  - to play, experiment, suppose, test, question, guess and expand the boundaries of conventional thought.

Description of Strategy

- **Affective Skill Development**

  A stimulating instructional environment accommodates the development of the affective skills which are the "feeling processes" of productivity. These affective skills are:

  CURIOSITY – the knack of wondering or puzzling.
  You are curious when:
  - you take a ____ apart to see what is inside
  - you ask "Why ...?"
  - you wonder "What if ...?"

  RISK TAKING – the courage to attempt something that may leave you open to criticism.
  You are a risk taker when:
  - you make a guess
  - you experiment
  - you try something new.

  COMPLEXITY – seeking an easier method; organizing; ordering.
  You are showing a preference for complexity when:
  - you set up an assembly line to make ____
  - you make up a schedule
  - you plan and organize a ____.

  IMAGINATION – visualizing, building images in the mind.
  You are using your imagination when:
  - you picture the setting of a story
  - you fantasize about the outcome of ____
  - you daydream.

- **Cognitive Skill Development**

The cognitive skills are the thinking processes of creativity. These are skills that can be taught, practised and applied in other areas of the curriculum. It is important to remember that creative thinking is a complex process which combines both the cognitive and affective skills. The following cognitive skills may be developed in each of the thematic learning activities:

FLUENCY – the ability to think of many possibilities.
You are being fluent when:

- you can list many ways to ____
- you can think of several ideas for ____
- you can think of more than one solution for ____.

FLEXIBILITY – the ability to shift directions of thought.
You are being flexible when:

- you can examine an issue from more than one viewpoint
- you can find other uses for a ____
- you can find different kinds of reasons to ____.

ELABORATION – the ability to stretch an idea to make it more interesting.
You are elaborating when:

- you add details and imagery to your story
- you add pictures, maps or tables to make a point clearer
- you add supplementary ideas to a main idea.

ORIGINALITY – the ability to express unusual alternatives.
You are being original when:

- you make something quite different from everyone else
- you can think of a new way to do something
- you think of an idea nobody else thought of.

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LEEP, CHECK: Oral Presentation Strategies

Purpose

- to provide students with memory cues when making oral presentations.

Description of Strategies

LEEP
L – Loud and clear
E – Expression
E – Eye contact
P – Posture

CHECK
C – Checking the audience
  - Is everyone ready to listen?
H – Having eye contact with the audience
E – Expressive
C – Clear
  - Make sure you speak so that everyone can understand your words
K – Keen to be heard
  - Show you're interested in what you're saying; be enthusiastic!

Teaching Example

Reinforce the use of LEEP or CHECK by integrating it into your marking scheme when presentations are made to the class. Reinforce to students that whenever they're speaking to others, whether in a group or individually (party, playground, dinner table, etc.), the same principles apply.

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A Guide to Effective Listening

Purpose

- to enhance students' listening ability.

Procedure

Provide each student with a copy of the listening guide below to use as preparation for listening to an oral presentation by a guest speaker or class member. Have students use their responses to the questions as a basis for later class discussions.

Use this guide as you listen to spoken presentations in class. When you have become familiar with it, you may wish to create your own personal listening study guide.

1. What is the general subject of this talk?
2. What is the specific occasion? (Give name of class, speaker's name and date.)
3. What is the chief point or main message? (This may be answered *after* the talk.)
4. What organizational plan does the speaker follow? (Is it enumeration? Comparison and contrast? Cause and effect? Generalization plus examples? A time or sequence pattern? Is it a mixture of patterns?)
5. What transitional expressions does the speaker use?
6. Does the speaker digress from the main point?
7. In what ways do you differ with the speaker?
8. What interested you the most? The least?
9. What is your personal reaction to the main point of the talk?
10. Write the speaker's main point in three or fewer sentences.

The following questions may also be used to stimulate discussion on the importance of effective listening skills:

- What helps you listen in class? At home? In the workplace?
- What prevents you from listening?
- How do you know when it is important for you to listen?
- What do you do to make yourself listen when you know you should, but you really don't want to?

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PMI: An Exploration Strategy

Purpose

- the PMI strategy is designed to aid students to explore a subject systematically and in depth, rather than just to support their position. Students are instructed to direct their attention to the "Plus" (P) aspects, then the "Minus" (M) aspects and, finally, the "Interesting" (I) aspects. The strategy also allows students to view how others think.

Procedure

1. A topic for discussion is assigned or arises during classroom dialogue.
2. Students are divided into small groups (of three or four) and instructed to divide a page in their workbooks into three columns and label them P, M and I.
3. They are directed to think first about "Plus" (P) points regarding the discussion topic, and to write these points in the 'P' column. The same procedure is followed, in order, for the "Minus" (M) column and the "Interesting" (I) column. All points raised are to be accepted without judgment.
4. The points raised in the small groups are shared with the whole class.

Suggested Applications

1. This strategy can be used as a way to self-analyze and evaluate the present strategy used by the pupils. For example, the assigned topic could be "Do a PMI on the use of RAP strategy during the reading lesson we just completed". This analysis, with the whole class, should lead to modification of the strategies as your students apply them to various situations and settings.
2. Additionally, the PMI strategy could be used to assist pupils to think systematically and evaluate their positions in other domains (academic discussion topics, social domains, etc.).

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Positive Self-talk: A Self-concept Building Strategy

Purpose

- to assist students to enhance their self-esteem.

Procedure

1. Present your class with an assignment that is challenging for all students. As they attempt to complete the work, use verbal praise, directed toward the efforts being shown. Phrases such as "You can do it." "You're really trying hard." should be used. Circulate around the room to document overt student comments. Midway through task completion, stop the students in order to discuss:

   - why you were using praise as a motivation
   - your observation of their overt speech (If they were speaking to themselves, what were they saying?).

2. Guide the discussion toward the goal of understanding that, just as teachers use praise as a tool to motivate students, individuals can use positive self-talk as a strategy to motivate themselves. Through the use of positive self-talk they can redirect their attention **away from** self-criticism, feelings of incompetence and expectations of failure, **toward** the learning task at hand.

Suggested Follow-up Activities

Whenever students appear stressed, remind them (in a whisper) to monitor their thoughts and to use overt positive self-talk. In-class test preparation periods are ideally suited to this.

If students lack a positive vocabulary, spend time brainstorming with them to create a "master list" of positive phrases for their use.

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RAP: A Comprehension Strategy

Purpose

- to help students develop a strategy to improve their ability to comprehend written text.

Description of Strategy

R – Read
A – Ask
P – Put

Procedure

Have students:

1. read the paragraph or instructions.
2. ask themselves what they have just read.
3. put the material they have just read into their own words.

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Reinforcing the Positive

Purpose

- to enhance IOP students' self-esteem.

Procedure

Carefully observe individual student behaviours and, at every opportunity, reinforce correct and positive behaviour with words of praise. The following list provides 99 ways to say, "You did a good job".

1. SUPER GOOD!
2. You've got it made.
3. SUPER!
4. That's RIGHT!
5. That's good.
6. You're really working hard today.
7. You are very good at that.
8. That's coming along nicely.
9. GOOD WORK!
10. That's much better!
11. I'm happy to see you working like that.
12. Exactly right.
13. I'm proud of the way you've worked today.
14. You are doing much better today.
15. You've just about got it.
16. That's the best you have ever done.
17. You're doing a good job!
18. THAT'S IT!
19. Now you've figured it out.
20. That's quite an improvement.
21. GREAT!
22. I knew you could do it.
23. Congratulations!
24. Not bad.
25. Keep working on it, you're improving.
26. Now you have it!
27. You are learning fast.
28. Good for you!
29. Couldn't have done it better myself.
30. You are a joy.
31. One more time and you'll have it.
32. You really make my job fun.
33. That's the right way to do it.
34. You're getting better every day.
35. You did it that time!
36. You're on the right track now!
37. Nice going.
38. You haven't missed a thing.
39. WOW!
40. That's the way!
41. Keep up the good work.
42. TERRIFIC!
43. Nothing can stop you now.
44. That's the way to do it!
45. SENSATIONAL!
46. You've got your brain in gear today.
47. That's better.
48. That was first-class work.
49. EXCELLENT!
50. That's the best ever!
51. You've just about mastered that.
52. PERFECT!
53. That's better than ever.
54. Much better!
55. WONDERFUL!
56. You must have been practising.
57. You did that very well.
58. FINE!
59. Nice going.
60. You're really going to town.
61. OUTSTANDING!
62. FANTASTIC!
63. TREMENDOUS!
64. That's how to handle that!
65. Now that's what I call a fine job.
66. That's great.
67. Right on.
68. You're really improving.
69. You're doing beautifully.
70. Superb!
71. Good remembering!
72. You've got that down pat!
73. You certainly did well today.
74. Keep it up!
75. Congratulations! You got it right.
76. You did a lot of work today!
77. Well, look at you go!
78. That's it!
79. I'm very proud of you.
80. MARVELLOUS!
81. I like that.
82. Way to go!
83. Now you have the hang of it.
84. You're doing fine.
85. Good thinking!
86. You are really learning a lot.
87. Good going.
88. I've never seen anyone do it better.
89. Keep on trying!
90. You outdid yourself today.
91. Good for you!
92. I think you've got it now.
93. That a good (boy/girl).
94. Good job, (student's name).
95. You figured that out fast.
96. You remembered!
97. That's really nice.
98. That kind of work makes me happy.
99. It's such a pleasure to teach when you work like that!

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SCAMPER: An Idea Generating Strategy

Purpose

- to assist students to think creatively.

Description of Strategy

S – Substitute
C – Combine
A – Adapt
or A – Add
M – Magnify
or M – Minify
or M – Modify
P – Put to other uses
E – Eliminate
R – Rearrange

Procedure

Students are encouraged to use each letter of the mnemonic to generate answers to related questions.

SUBSTITUTE
- Who else can do this?
- Can another source of power, another person or place, be used instead?
- Can another ingredient or material be used?
- Can something else be used in place of one of the parts?

COMBINE
- Can parts of ideas be combined?
- Can purposes or uses be combined?
- Can functions or objectives be combined?

ADAPT
- What other ideas does it suggest?
- What can you copy, making some changes?
- What can you imitate?

ADD
- Add more details.
- Add another just like it.
- Add more parts, pieces.

MAGNIFY
- What would it be like if it were made bigger?
- Can you increase the time, strength or value?
- What would it be like if you increased the number?

MINIFY
- What would it be like if it were smaller?
- Can it be made lighter, lower, cheaper?
- What if it became rare?

MODIFY

- Change the colour, shape or materials.
- Can you change the function, purpose or condition?
- What new twists can be made?

PUT TO OTHER USES

- Can it be put to another use?
- Can you modify it for another use?
- Can you find something else to use in its place?

ELIMINATE

- Remove some of the parts or characters.
- Eliminate some of the functions, materials or uses.
- Remove the beginning or end.

REARRANGE

- Can you interchange parts?
- Can you rearrange the pattern or plan?

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SCORER: A Test-taking Strategy

Purpose

- to prepare students to take exams that include written questions and/or instructions.

Description of Strategy

S – Schedule time
C – Identify clue words
O – Omit difficult questions
R – Read directions
E – Estimate answers
R – Review

Procedure

This strategy is designed to aid students to approach test taking systematically.

1. **S – Schedule** your time. The student must consider:
    a. How many questions are there?
    b. What are the weightings of the various questions?
    c. Which questions are easy, difficult, fast, etc.? The time needed to complete each section should then be estimated; e.g., a multiple choice test of 120 questions with a one hour time limit is: 60/120 = .5 minutes per question.

2. **C – Clue words**. Most exam questions have built-in clues. Use them.

3. **O – Omit** the difficult questions. The following procedure is suggested to aid the students in this step.
    a. Move quickly through the test on the first pass: don't dawdle; keep moving.
    b. When a question appears easy or you're certain of the answer – answer it.
    c. On the first pass, skip those questions that appear difficult. When a question is missed, mark the margin with a symbol (+ or ✓) to show that you need to come back to it.
    d. When the easy and certain questions are answered, return to those skipped and marked with a symbol, and try again.
    e. If you still are unable to answer on the second pass, mark the questions again by changing the "+" to "++" or ✓ to "✓ ✓". Keep moving.

4. **R – Read** the directions for the test and for each test question very carefully.

5. **E – Estimate** your answers. This could have two meanings, according to the type of test question:
    a. Those involving calculations or problem solving – roughly estimate the "ball park" figure.
    b. Multiple choice – take an educated "guesstimate" at a possible answer if you are unable to answer the question on the third pass. Never leave questions unanswered unless you will be penalized for wrong answers.

6. **Review**:

   a. Use every minute available to you. Return to the double checked (+ + or ✓ ✓), difficult questions first. Look for new clue words and hints. Next, review the single checked (+ or ✓) questions, and, finally, if there is time, the unchecked ones.
   b. Only change answers if you have a good reason to do so.
   c. Be sure all questions are answered.
   d. Make certain that your name is **printed** on all separate sheets.

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Speech Evaluation Guide

Purpose

- to enable students to recognize the components of a good oral presentation and to enhance their ability to make oral presentations. The main purpose of oral presentations is to get students to develop self-confidence in talking in front of a group. They must try to establish a comfortable rapport with the group and control signs of nervousness! Choosing a topic they know a lot about, and being well prepared, will get them "off the hook" so they can work on the main purpose.

Procedure

In consultation with each student, decide on a topic and a date for an oral presentation. Encourage students to research their topic and practise their presentation. Have students use the speech evaluation guide to provide feedback to presenters.

SPEECH EVALUATION GUIDE

Speaker's Name: ____________________

Topic: ____________________

Date: ____________________ Time: ____________________ (minutes)

	Yes	Needs Improvement
1. The speaker was adequately prepared for the talk.	______	______
Comment: ______________________________		
2. There was a definite opening, body and conclusion to the talk.	______	______
Comment: ______________________________		
3. The speaker attempted to make eye contact with the audience.	______	______
Comment: ______________________________		
4. The speaker was able to control nervousness in front of the class.	______	______
Comment: ______________________________		
5. The speech was audible and clear to all listeners.	______	______
Comment: ______________________________		
6. The speaker used his notes or cards discretely so as not to interfere with the main purpose of the speech.	______	______
Comment: ______________________________		

Comment on the speaker's strongest point. ______________________________

Give one or two specific suggestions for improvement. ______________________________

SPOT: A Social Problem-solving Strategy

Purpose

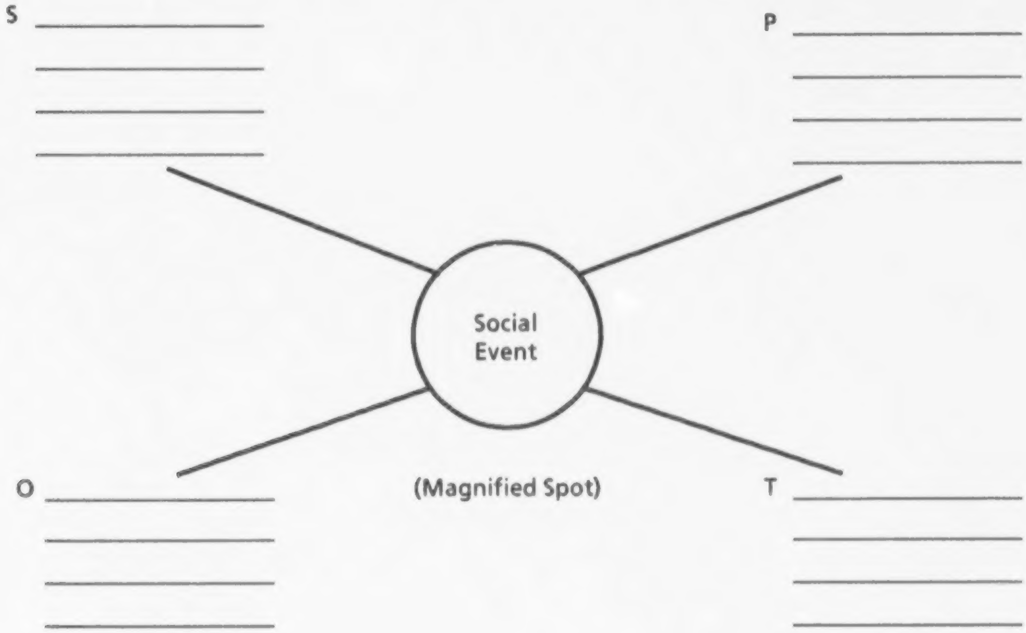
- to assist students to recognize and to analyze systematically a social situation before it becomes a social problem.

Description of Strategy

S – Setting: Who? What? Where? When?
P – Problem: What's the situation to be solved?
O – Order of action: What happened?
T – Tail end: What can be done next time?

Procedure

Problem-solving Chart:



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SQ3R: A Chapter Attack Strategy

Purpose

- to enable students to use a systematic approach to reading and comprehension.

Description of Strategy

S – Survey
Q – Question
3R – Read, recite, review

Procedure

1. Survey – quickly read:
   a. chapter introduction (beginning)
   b. chapter summary (end)
   c. first sentence in each paragraph
   d. visual aids (pictures, graphs, diagrams).
2. Question – ask a question based on each subtitle.
3. Read – read each section to find the answer to your question.
4. Recite – write down the answer.
5. Review – say or write a summary of what you've learned.

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WIS: A Word Identification Strategy

Purpose

- to enable students to read new words.

Procedure

1. Choose a sentence containing a difficult word with which you are not familiar. Attempt to guess what it means by reading the words around it.
2. Look for a prefix. Look at the beginning of the word. Say it.
3. Look for a suffix. Look at the end of the word. Say it.
4. Locate the stem. Look at what's left after locating the prefix and the suffix.
5. Attack the stem by:
    a. Using the rule of 2's and 3's. If the stem starts with a vowel, say it with 2 letters; if with a consonant, say it with 3 letters.
    b. Two vowels together sound like one – try both sounds.
6. Look it up in a dictionary.
7. Ask someone.

Writing Directions: An Evaluation Guide

Purpose

- to enable students to write and evaluate a project plan.

Procedure

Have students write and evaluate a project plan before proceeding with the project.

PROJECT PLAN EVALUATION		
	- Possible Score	My Score
1. The title is present and gives an indication of the purpose of the directions. An example might be, "How to Fly a Kite".	2	
2. Supplies and equipment are all identified and correctly classified.	2	
3. The instructions are listed:		
• in complete sentences	3	
• in the correct sequence	4	
• without any omissions	4	
• in a numbered order	2	
• using present tense	2	
• without addressing "you".	1	
4. Safety hazards, if they exist, are identified and noted in the appropriate location.	2	
5. The overall organization is easy to follow.	3	
Total	25	

Scale Point

0–10	The directions are incomplete and/or in an inappropriate format.
11–15	There are serious problems with format and there may be omissions.
16–19	The instructions are logical although there may be some weaknesses in format.
20–25	A clear set of directions is presented in a standard format.

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TEACHER SUPPORT MATERIAL

COURSE SEQUENCE, CREDITS AND CERTIFICATE REQUIREMENTS

The occupational component of the Integrated Occupational Program consists of twenty occupational course sequences. The following chart shows the sequence and credit value of each course and the minimum number of occupational courses required to obtain the Certificate of Achievement.

Grade	10	11	12
Sequence	16	26	36
Credits	3 or 5	10	10
Minimum number of courses	2×5 credit 4×3 credit	2	1

COURSE OBJECTIVES

The objectives of each 36-level occupational course are to assist students to develop the generic skills as outlined in the *IOP Occupational Component 16–26–36 Program of Studies* and the necessary work skills outlined in the work skills profile outlined in each student workbook and in particular:

- to develop students' personal and interpersonal skills
- to increase students' awareness and appreciation of employment and entrepreneurial opportunities
- to prepare students for transition to the workplace and/or further education/training
- to enable students to become responsible members of society.

COURSE OVERVIEWS

Each 36-level occupational course orients students to related occupations. There are two dimensions to each course:

1. Generic skills; i.e., transferable concepts, skills and attitudes

2. Work skills; i.e., occupational cluster/course specific knowledge and skills.

The generic skills, including generic work skills, outlined as learning objectives in column one of the *IOP Occupational Component 16–26–36 Program of Studies* are common to all 36-level occupational courses. Acquisition of the generic competencies identified as desirable at the 36-level will provide students with a firm foundation on which to build a body of concept, skills and attitudes that is conducive to multiple employment opportunities.

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The course specific work skills for each course are outlined in the scope and sequence charts in the *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide.* A summary work skills profile related to each 36-level occupational course is outlined in the student workbook available for each occupational course.

Teachers are advised to use the work skills as the context in which to teach the generic components of each course, and are encouraged to supplement, complement and adapt the sequence of each set of course specific work skills to suit the needs of their students, the availability of facilities and the opportunities for community partnerships.

CONTENT SEQUENCE: REQUIRED AND ELECTIVE COMPONENTS

The content of each occupational course is outlined in the generic and work skills learning objectives. Both sets of objectives are designed to accommodate individual student's needs, interests and differences. Teachers should plan to engage students in activities designed to achieve both the generic and specific work skills learning objectives and allow time for enrichment or remediation as necessary.

Students' interests and abilities will determine largely how the elective time will be addressed. Opportunities exist for experimenting with varying organizational and instructional strategies that facilitate learning and are appropriate to students' developmental stages and different learning styles.

The instructional time for each 36-level occupational course should be apportioned:

- 80% required; i.e., generic skills 30%, work skills 50%
- 20% elective; i.e., enrichment, remediation.

Elective extension and enrichment activities may include:

- designing and implementing a more complex project
- planning and organizing additions to the service components of the course
- developing increased levels of competency in performing specific work skills
- decreasing the amount of time required to perform specific work skills
- using higher levels of quality control specifications to evaluate a product or a service
- initiating small group, class and community projects
- coordinating and maintaining a record of partnership activities
- participating in in-school and community volunteer agencies.

Elective remedial activities may include:

- reviewing the content of the related 16- and 26-level occupational courses in which the student appears weak
- relating new learning objectives to present life skills
- breaking a job into the smallest task units possible or necessary to enable the student to achieve incremental successes
- having more able students work with one or more of their peers to provide guidance, assistance and support
- using community partners as mentors for individual students.

COMMUNITY PARTNERSHIPS

Community partnerships is a required component of each occupational course. In each 36-level occupational course, forty per cent of instructional time should be devoted to community partnership activities. In-school and off-campus exposure to the world of business and industry will increase student understanding of and commitment to essential concepts, skills and attitudes outlined for each course. In addition, the development of school-community partnerships increases community members' awareness of the educational process and enhances students' employment opportunities as part-time employees and as full-time employees upon graduation from high school.

STUDENT WORKBOOKS

A student workbook has been developed for each 36-level occupational course. The contents of the workbook relate to key content areas indicated in the work skills profile contained in each workbook. At the 36-level, the content of each workbook consists mainly of a series of job sheets.

Teachers are encouraged to supplement and adapt the sequence and content of these job sheets to meet the needs and interests of students, taking into consideration the availability of facilities, and the opportunities for community partnerships and on-the-job learning.

INTEGRATION

Each course in the occupational component of the Integrated Occupational Program contains material that is directly related to learning contained in the core subject area profiles.

Teachers involved in the Integrated Occupational Program are encouraged to work closely with one another in both their instructional planning and delivery. The reinforcement of learning through integrated course development, integrated lesson planning and integrated delivery, will enable students in the program to be better prepared to respond to the demands of schooling and better equipped for entry into the work force.

INSTRUCTIONAL FORMAT

Each 36-level occupational course is designed to be a hands-on course of instruction. Theoretical components, usually associated with instruction in similar areas, have been minimized.

While all of the concepts, skills and attitudes may be developed in a lab/classroom environment, student learning will be maximized through using community partnerships at every opportunity. Partnerships include in-school demonstrations and presentations, field trips, mentorships, as well as student placements in related work areas for extended time periods.

The greater the degree of parental and community involvement, the greater and more meaningful the learning experiences of the student are likely to be.

GENERAL INSTRUCTIONAL GUIDELINES

1. Assess the entry level of each student.
2. Identify the unique exit-level competencies appropriate for each student.
3. Recognize the need for each student to experience success in completion of even the smallest task.

4. Use evaluation checklists to provide regular feedback to students. (A variety of these checklists are contained in this document and in each 36-level student workbook.)

5. Be flexible; use the *IOP Occupational Component 16–26–36 Program of Studies*, the *IOP Occupational Component 36-Level Courses Program of Studies/Curriculum Guide*, this document, and the appropriate student workbook to prepare your instructional plan. Modify the sequence and scope of the work skills to meet the needs of individual students.

6. Establish and use community partnerships whenever and wherever possible.

EVALUATION

Students should be provided with multiple opportunities in which to experience success. Whenever possible, teachers are encouraged to provide students with reinforcement for positive and correct behaviour. Three generic evaluation instruments, which have applicability across occupational course areas, are included in the following pages.

- Monthly Performance Evaluation Report
- Student Behaviour and Performance Evaluation Chart
- Portfolio Evaluation.

Additional evaluation instruments may be found in previous sections of this teacher resource manual and in each 36-level student workbook.

Wherever possible, students should be encouraged to evaluate themselves and to provide constructive feedback on their own performance and on the performance of their peers.

RESOURCES

In addition to the student and teacher resources previously identified in this document, a collection of resources applicable to each occupational course sequence (16–26–36) are listed as "Other Learning Resources" on the following pages.

Other learning resources listed in this document have been identified as potentially useful for integrating instruction of the generic concepts with the work skills. Except where designated, these titles have not been evaluated by Alberta Education and their listing is not to be construed as an explicit or implicit departmental approval for use. These titles are provided as a service only to assist local jurisdictions to identify resources that contain potentially useful ideas for teachers. The responsibility of evaluating these resources before making a selection rests with the local jurisdiction according to local policy.

SAFETY

Safety practices and the wearing of appropriate protective safety clothing should be a primary focus in each occupational course. The theme addressed within each student workbook is:

SAFETY IS EVERYONE'S BUSINESS

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MONTHLY PERFORMANCE EVALUATION REPORT

Course: ______________________ Teacher's Name: ______________________

Report for Month of: ______________________

Student's Name: ______________________ Monthly Rating Total: ______________________

Rating Scale: 2 – Excellent 1.5 – Good 1 – Satisfactory .5 – Poor 0 – Unsatisfactory

Criteria	Comments	Evaluation				
1. Attends regularly		0	.5	1	1.5	2
2. Is punctual		0	.5	1	1.5	2
3. Is prepared for work		0	.5	1	1.5	2
4. Demonstrates task commitment		0	.5	1	1.5	2
5. Develops good working relationships with others		0	.5	1	1.5	2
6. Displays a positive attitude toward subject matter		0	.5	1	1.5	2
7. Performs all duties and assignments		0	.5	1	1.5	2
8. Understands instructions and follows directions		0	.5	1	1.5	2
9. Demonstrates a professional attitude		0	.5	1	1.5	2
10. Demonstrates responsibility		0	.5	1	1.5	2

What percentage of the possible performance score of 20 did you attain this month? ______________

STUDENT BEHAVIOUR AND PERFORMANCE EVALUATION CHART

High 5	Medium 3	Low 0
A. Team work		
1. Contributes frequently.	1. Contributes occasionally.	1. Seldom contributes.
2. Actions contribute to achievement of class objectives.	2. Some actions contribute to achievement of class objectives.	2. Few actions contribute to achievement of class objectives.
3. Supports actions through research.	3. Cannot always support actions.	3. Seldom able to support or justify actions.
B. Initiative		
1. Identifies and solves problems.	1. Needs assistance to identify and solve problems.	1. Waits to be told what to do next.
2. Demonstrates high initiative.	2. Demonstrates moderate initiative.	2. Lacks initiative.
3. Locates and examines assorted reference materials.	3. Makes use of available illustrative matter and reference materials.	3. Unable to locate or use illustrative and reference materials.
C. Quality Service		
1. Knows the meaning of courtesy and quality service.	1. Needs to be reminded of the meaning of courtesy and quality service.	1. Doesn't know what it means to be courteous and to give quality service.
2. Demonstrates quality service skills.	2. Demonstrates some quality service skills.	2. Fails to demonstrate quality service skills.
3. Appreciates the importance of quality service.	3. Shows some appreciation for the importance of quality service.	3. Shows little appreciation of quality service skills.

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PORTFOLIO EVALUATION

Name: ____________________ Course: ____________________

Requirements of Assignment

________ All required examples of work included? ____________________.

________ Work is signed, dated, presented according to requirements.
Comment: ____________________
____

________ Subject matter rendered in a variety of media, techniques.
Comment: ____________________
____

Growth

________ Work shows growth in skill and confidence over the period of assignment.
Comment: ____________________
____

________ Finds own ideas for creating and expressing subject matter.
Comment: ____________________
____

________ Uses media effectively.
Comment: ____________________
____

________ Refines, modifies ideas to suit medium, problem.
Comment: ____________________
____

Summary Assessment

Student: ____________________ Teacher: ____________________

Date: ____________________ Date : ____________________

TEACHER SUPPORT MATERIAL

AGRICULTURAL MECHANICS 36

COURSE SEQUENCE

Agricultural Mechanics 36 is the final course in the Agricultural Mechanics 16–26–36 sequence. This sequence is one of three that comprise the agribusiness occupational cluster.

Agricultural Mechanics 36 prepares students for entry-level positions in the field of agricultural mechanics and related businesses. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete this course and consider complementing it with courses from one or more related course sequences; e.g., agricultural production, horticultural services and automotive services.

ENTRANCE REQUIREMENT

Students taking Agricultural Mechanics 36 must have satisfactorily completed Agricultural Mechanics 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

The activities of this program may be experienced in a combination of the following locations:

- a classroom
- a mechanic's workshop
- a welding shop
- a carpentry shop
- a farm
- a local agribusiness or farm services and supply outlet.

Teachers are encouraged to establish, use and monitor community partners who will provide students with on-the-job instruction, under a teacher's supervision, for the majority of the Agricultural Mechanics 36 course.

The following equipment and tools are suggested for teaching Agricultural Mechanics 36. If major items of equipment are not available, the use of community partners resources is suggested.

Equipment

Arc welding units and attachments
Assorted shop cleaning equipment
Compressed air supply
Exhaust extraction system
Fire safe garbage cans
Fire safe storage cabinets
Oxyacetylene welding units and attachments
Painting equipment
Pressure washer
Project storage containers/areas
Protective safety clothing
Rope and pulley arrangements
Small engines
Soldering equipment
Solvent tanks
Supplies storage container(s)

Tools

Assorted common hand and power tools
Framing squares
Hand and power tools
Measuring tapes

OTHER LEARNING RESOURCES

Agricultural Mechanics. Oklahoma State Board of Vocational and Technical Education, 1977.

Farm Machinery Safety. Canada Safety Council.

Farm Welding (Agdex 785). Alberta Agriculture, 1985.

Grimes, L. A. Jr. *Building Maintenance Repairer.* University of Texas at Austin, 1984.

How to Read House Construction Drawings (Homedex 1700–41). Alberta Agriculture, 1985.

McDonnell, L. and A. Kaumecheiwa. *The Use of Power Tools.* Delmar Pub. Inc., 1980.

Replacing Farm Equipment (Agdex 825–18). Alberta Agriculture, 1984.

Scott, Foy, Schwendu. *Drafting Fundamentals.* Glenco Publishing Inc., 1985.

Service and Repair Instructions. Briggs and Stratton Corp., 1983.

Small Engine (Program Materials). American Association for Vocational Instructional Materials, 1979.

Small Engine Service Manual. Technical Publications Division, Intertec Publications Corporation, 1978.

South, P. *Basic Blueprint Reading.* Mississippi State University, 1983.

Trac Common Core: Oxyacetylene Cut and Weld. Province of British Columbia, Ministry of Advanced Education, 1978.

Vocational Agriculture I. Oklahoma State Board of Vocational and Technical Education, 1984.

Vocational Agriculture II. Oklahoma State Board of Vocational and Technical Education, 1986.

W. Weiss. *Home Maintenance* (2nd Edition). Glenco Publishing Inc., 1983.

Other materials may be available from:

Agriculture Canada
Contact: Communications Branch
Agriculture Canada
930 Carling Avenue
Ottawa, Ontario K1A 0C7

Canada Safety Council
Contact: Canada Safety Council
1765 St. Laurent Blvd.
Ottawa, Ontario K1G 3V4

Farm Association Inc.
Contact: Unit 22
340 Woodlawn Road W
Guelph, Ontario N1H 7K6

Also: Farm equipment manufacturers
Equipment and tool manufacturers.

Additional related audio-visual resources are available from:

ACCESS Network
Contact: ACCESS Network
16930 – 114 Avenue
Edmonton, Alberta T5M 3S2

National Film Board of Canada
Contact: 222 – 1 Street, SE
P.O. Box 2950, Station M
Calgary, Alberta T2P 3C3

Contact: Centennial Building
10031 – 103 Avenue
Edmonton, Alberta T5J 0G9

TEACHER SUPPORT MATERIAL

AGRICULTURAL PRODUCTION 36

COURSE SEQUENCE

Agricultural Production 36 is the final course in the Agricultural Production 16–26–36 sequence. This sequence is one of three that comprise the agribusiness occupational cluster.

Agricultural Production 36 prepares students for entry-level positions in the agricultural industry.

Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the course and consider complementing it with courses from one or more related course sequences; e.g., agricultural mechanics, horticultural services.

ENTRANCE REQUIREMENT

Students taking Agricultural Production 36 must have satisfactorily completed Agricultural Production 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

The activities of this program may be experienced in a combination of the following locations:

- in a classroom
- in a school horticultural or biology lab
- on a farm
- in a local agribusiness or farm service and supply outlet.

A diverse range of facilities including equipment, tools and supplies may be used in this course. Use the *Agricultural Production 36 Student Workbook* as a guide to needed facilities, etc.

Teachers are encouraged to develop, use and monitor community partners to provide students with on-the-job instruction and access to diverse facilities, under a teacher's supervision, for delivery of the Agricultural Production 36 course.

Equipment

Calculator
Combine harvesters
Field tractor and attachments
- harrow

Heat lamp
Microscope, slides, coverslips
Protective safety clothing
Rain gauge

Supplies

Baking soda
Cotton balls
Cheesecloth
Disinfectant
Distilled water
Feed samples
- ground barley
- rolled barley
- whole barley

Garbage bags/twisters
Masking tape
Nitrazene paper
Rags
Rubbing alcohol
Tatooing ink

Tools

Beakers
Can opener
Core sampling tool
Cultivating hand tools
Ear tag applicator tool
Forceps
Funnel
Glass jars and rods
Grain scoop
Graduated cylinders
Grease gun
Light bulbs, assorted voltages
Magnifying glass
Measuring cup
Measuring tape
Medicine dropper
Mortar and pestle
Nails, assorted
Pails, assorted sizes
Picnic cooler
Sample soil box
Scissors
Screening material, fine
Sponge
Strainers
Syringes and needles
Tatooing pliers, letters and digits

OTHER LEARNING RESOURCES

A wide assortment of resources and resource catalogues may be obtained from the following agencies:

Agriculture Canada
Contact: Communications Branch
Agriculture Canada
930 Carling Avenue
Ottawa, Ontario K1A 0C7

(See Appendix 1 for a listing of free publications.)

Alberta Agriculture
Contact: Print Media Branch
Alberta Agriculture
7000 – 113 Street
Edmonton, Alberta, T6H 5T6
OR
Alberta Agriculture's District Offices

ACCESS Network
Contact: ACCESS Network
16930 – 114 Avenue
Edmonton, Alberta T5M 3S2

Alberta Wheat Pool
Contact: Box 2700
505 – 2 Street, SW
Calgary, Alberta T2P 2P5

Beef Information Centre
Contact: 238, 2116 – 27 Avenue, NE
Calgary, Alberta T2E 7A6

Canada Safety Council
Contact: Canada Safety Council
1765 St. Laurent Blvd.
Ottawa, Ontario K1G 3V4

Crop Protection Institute of Canada
Contact: 710 – 116 Albert Street
Ottawa, Ontario K1P 5G3

Farm Safety Association Inc.
Contact: Unit 22
340 Woodlawn Road W
Guelph, Ontario N1H 7K6

Health and Welfare Canada
Contact: Health Promotion Branch
425 – 75 Cambie Street
Vancouver, British Columbia V6B 4V5

National Film Board of Canada
Contact: 222 – 1 Street, SE
P.O. Box 2950, Station M
Calgary, Alberta T2P 3C3

Contact: Centennial Building
10031 – 103 Avenue
Edmonton, Alberta T5J 0G9

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You can receive up to five free publications each year from Agriculture Canada. Student publications are available to schools when ordered in reasonable quantities **on school letterhead**. Orders will be filled as quickly as possible, while quantities last. Please allow four to six weeks for delivery.

Address orders to: Communications Branch
Agriculture Canada
930 Carling Avenue
Ottawa, Ontario K1A 0C7

GENERAL

1123/E	Organization and Activities of Agriculture Canada
1296/E	Farming in Canada
1659/E	Starting a Farm in Canada
5054/E	Don't Bring It Back (folder)
5055/E	Short Films
5152/E	Canada's Agri-food System
5162/B	Technical Publications and Information from Agriculture Canada (folder)
5164/B	Agriculture Canada Priced Publications (folder)
5171/B	Helping the Agri-food Industry Grow (folder)
5184/B	Ornamental Attractions at the Central Experimental Farm (fact sheet)
5195/B	General Information on Tours – Central Experimental Farm (fact sheet)
5198/B	The Agricultural Inspection Directorate

CAREERS

5099/B	Women in Agriculture
5176/B	Women, a Driving Force in the Agri-food System (folder)
5179/B	A Career in Agricultural and Food Research (folder)
5200/E	Careers in the Agri-food System

PESTICIDES

1202/E	Control of Fabric Pests
1370/E	Control of Rats and Mice
1735/E	Insect Control in the Home
1752/E	Insect Control in the Home Garden
5128/E	Let's Talk About Pesticides (folder)
9401/E	Wood Preservatives (fact sheet)

FOOD

Home food preservation

892/E	Freezing Foods
1478/E	Home Storage Room for Fruits and Vegetables
1560/E	Canning Canadian Fruits and Vegetables
1742/E	Pickles and Relishes
1753/E	Jams, Jellies and Other Preserves
5187/E	Canning Meat at Home (fact sheet)

Meat, poultry and alternatives

1270/E	Turkey for Everyone (folder)
1317/E	Chicken Broilers (folder)
1429/E	Pork (folder)
1501/E	Canadian Lamb (folder)
1555/E	Beans, Peas and Lentils
1690/E	Meat Shopper's Guide
5167/B	Meat Inspection – Your Protection (folder)
5174/B	Economical Main Course Dishes (folder)

Milk and milk products

1622/E	Canadian Cheddar Cheese (folder)
1636/E	Canadian Cheese Guide (folder)
1648/E	Skim Milk Powder (folder)
1759/E	Making Dairy Products at Home

Fruits and vegetables

1476/E	Fresh Canadian Vegetables
1730/E	Apple Traditions the Modern Way (folder)
1735/E	All About Canadian Apples (folder)
1741/E	Potatoes Now (folder)
5172/B	Canadian Fruits and Vegetables Year Round (folder)
5173/B	Easy Gourmet Recipes with Frozen Foods (folder)

Miscellaneous

1392/E	Honey (folder)
1551/E	Cereals Anytime (folder)
1621/E	A Taste of Maple (folder)
1695/B	Food Storage in the Home (wall chart)
1707/E	Conserve Today to Consume Tomorrow
1720/E	Canada's Food Grades
1747/E	Food Shopping for One
1764/E	Feeding a Crowd Safely
5148/B	Shop Canadian Year Round (folder)
5150/B	Your Choice Counts (folder)
5175/B	Recipes with Canned Convenience (folder)

HORTICULTURE, PESTS AND DISEASES

1059/E	Home Vegetable Growing
1516/B	Gypsy Moth (folder)
1558/E	Growing Garden Tomatoes
1559/E	Growing Garden Potatoes (fact sheet)
1570/E	Canadian Havens from Hay Fever
1653/E	Container Gardening
1677/E	Growing Garden Grapes
1699/E	Poison Ivy, Western Poison Oak, Poison Sumac
1708/E	Care of Potted Flowering Plants
1718/B	Major Pests of Birch and Maple Trees (fact sheet)
1722/E	Growing Trees in Canadian Gardens
1727/B	New Winter-hardy Roses and Other Flowering Shrubs
1732/E	Care of Foliage Plants
1755/E	Coral-bells for Canadian Gardens
1762/E	Herbaceous Perennials for the Prairie Provinces
1773/B	Pruning Fruit Trees in Your Home Garden (fact sheet)

LIVESTOCK AND POULTRY

1381/E	Livestock on Small Farms
1439/E	Dairy Husbandry in Canada
1489/E	Managing a Small Poultry Flock
1524/E	Managing a Small Duck Flock
1557/E	The Registration of Animals in Canada

STUDENT PUBLICATIONS

What you should know about . . .

1350/E	Fruit Production
1412/E	Seeds
1486/E	Pollution and Agriculture (fact sheet)
1667/E	Agriculture Canada (fact sheet)

1709/E	Fertilizers
1774/E	Maple Syrup (fact sheet)
1802/E	Pest Control (fact sheet)
1803/E	Soil (fact sheet)

Photos . . .

1616/B	Northern Agriculture
1748/B	Breeds of Poultry
1749/B	Breeds of Cattle, Horses and Swine
1750/B	Breeds of Sheep and Goats
1784/B	The Canadian Broiler Industry

TEACHER SUPPORT MATERIAL

HORTICULTURAL SERVICES 36

COURSE SEQUENCE

Horticultural Services 36 is the final course in the Horticultural Services 16–26–36 sequence. This sequence is one of three that comprise the agribusiness occupational cluster.

Horticultural Services 36 prepares students entry-level positions in agribusiness. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the course and consider complementing it with courses from one or more related course sequences; e.g., agricultural production and agricultural mechanics.

Students with particular adeptness and interest should also be encouraged to enroll in the regular vocational horticulture program.

ENTRANCE REQUIREMENT

Students taking Horticultural Services 36 must have completed satisfactorily Horticultural Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools already having a horticulture program may wish to integrate Horticultural Services 36 in the lab with the Horticulture 32 course. For the majority of the Horticultural Services 36 course, teachers are encouraged to establish, use and monitor community partners to provide students with on-the-job instruction under a teacher's supervision.

The course activities may occur in a combination of the following locations:

- a school horticultural lab
- the school grounds
- a school greenhouse
- a community partner's work site; e.g., parks, florist shops, nurseries, commercial greenhouses, garden centres, botanical gardens.

The following equipment and tools are suggested for teaching Horticultural Services 36. In situations where major items of equipment are not available at the school, community partnerships are recommended.

Equipment

Aeration roller
Booster sprayer
Chain saw
Cold room
Compost bin
Electric hedge trimmer
Fertilizer spreader
Garden tractor

Tools

Cultivating hand tools
Garden forks
Garden hoses
Hand tools
Lawn edger
Lopping shears
Measuring cups
Pruning knives

Equipment (continued)

Greenhouse with environmental systems
Hose reels
Lawn mower
Lawn sweeper
Nylon string edge trimmer
Plant propagation equipment
Power lawn edger
Power lawn vacuum
Protective safety clothing
Rototiller
Seeding flats, trays and racks
Shredder
Stepladder
Wheel barrows

Tools (continued)

Pruning saw/hoes
Pruning shears
Rakes
Shovels
Spray wands

OTHER LEARNING RESOURCES

Conover, H. *Grounds Maintenance Handbook* (3rd Edition). McGraw-Hill Ryerson Limited, 1977. (Basic Learning Resource for Horticulture 12–22–32.)

McDaniel. *Floral Design and Arrangement*. Prentice-Hall Canada Inc., 1981. (Recommended Learning Resource for Horticulture 12–22–32.)

McDaniel. *Ornamental Horticulture*. Prentice-Hall Canada Inc., 1982. (Recommended Learning Resource for Horticulture 12–22–32.)

Otto, J. H., A. Towle, J. V. Bradley. *Modern Biology* (Canadian Edition). Holt, Rinehart and Winston of Canada Ltd., 1982. (Basic Learning Resource for Horticulture 12–22–32.)

Turgeon. *Turfgrass Management*. Prentice-Hall Canada Inc., 1980. (Recommended Learning Resource for Horticulture 12–22–32.)

York, B. *The Complete Family Flower and Garden Book*. Cretain Publications.

Other reference materials are available from:

Alberta Agriculture
Contact: Print Media Branch
Alberta Agriculture
9718 – 107 Street
Edmonton, Alberta T5K 2C8

OR
Contact your local Alberta Agriculture District Office.

Agriculture Canada (free publications)
Contact: Communications Branch
Agriculture Canada
930 Carling Avenue
Ottawa, Ontario K1A 0C7

Supply and Services Canada

Contact: Supply and Services Canada
Publishing Centre
Ottawa, Ontario K1A 0S9

Alberta Agriculture Film Library
Contact: Film Library
Alberta Agriculture
7000 – 113 Street
Edmonton, Alberta T5H 5T6

The following filmstrips and teacher guides are available from:

Vocational Media Associates
McIntyre Media Ltd.
30 Kelfield Street
Rexdale, Ontario
M9W 5A2

- Basics of Botany (Filmstrips No. 31092–127)
- Planting (Filmstrips No. 30750–127)
- Requirements for Health (Filmstrips No. 30753–127)
- Pruning (Filmstrips No. 30792–127)
- Propagating (Filmstrips No. 31089–127)
- Principles of Landscaping (Filmstrips No. 30797–127)
- Flower Arranging (Filmstrips No. 30752–127).

TEACHER SUPPORT MATERIAL
BUSINESS SERVICES 36

COURSE SEQUENCE

Business Services 36 is the final course in the Business Services 16–26–36 sequence. This sequence is one of two that comprise the business and office operations occupational cluster.

Business Services 36 prepares students for entry-level positions in the wholesale and retail world of businesses. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete this course and consider complementing it with courses from one or more related course sequences; e.g., office services, warehouse services.

Students with particular adeptness and interest should also be encouraged to enroll in the regular business education program.

ENTRANCE REQUIREMENT

Students taking Business Services 36 must have completed satisfactorily Business Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

A merchandising lab or similar facility is desired.

Where a lab is not available, or where integration of students into regular business education/ merchandising programs is not possible, the alternative of on-the-job training in the community may be considered. The teacher may wish to establish and use community partners to provide students with on-the-job training under a teacher's supervision for some of the Business Services 36 course.

The following equipment and supplies are suggested for teaching Business Services 36. In situations where major items of equipment are not available at the school, community partnerships are recommended.

Equipment

- Calculator
- Cash register
- Computer and printer
- Credit card imprinter
- Display equipment
  - bins
  - racks
  - shelves
- Facsimile machine
- Filing cabinet
- Postage meter/scale
- Reception/sales centre unit
- Tape recorder
- Telephone
- Telephone switchboard

Supplies

- Credit card sales slips
- Display materials
  - card stock/paper
  - coloured pens/pencils/crayons
  - draping
  - fasteners
- Paper supplies
- Sales centre and office supplies
- Packing supplies
  - bags
  - boxes
  - string
  - tape
- Software
  - accounting
  - inventory control
  - word processing
- Telephone directories

OTHER LEARNING RESOURCES

Farmer, Graham, Jenkins. *Personal Applications in Typewriting*. Gage Publishing Company, 1976. (Good for keyboarding applications.)

Lloyd, Rowe, Winger. *Typing Power Drills* (2nd Edition). McGraw-Hill Ryerson Limited, Gregg Division, 1965. (Good for reinforcing keyboard.)

Luke and Stiegler. *Office Systems and Procedures* (Canadian Edition). Markham, Ontario: Houghton Mifflin Canada Ltd., 1984. (Suitable for either secretarial or clerical emphasis.)

Additional resources may be obtained throughout content with the following agencies:

Alberta Government Telephones
Business Systems
8th Floor
10250 – 101 Street
Edmonton, Alberta
T5J 3P4
Telephone: (403) 493–4977

Canada Post Corporation
Customer Service
11th Floor, Phipps-McKinnon Bldg.
Edmonton, Alberta
T5J 4J4
Telephone: (403) 495–2227

Vista 33
Museum and Viewing Gallery
AGT Tower, 33rd Floor
10250 – 101 Street
Edmonton, Alberta
T5J 3P4
Telephone: (403) 493–3333

Mailing Address:
9828 – 104 Avenue
Edmonton, Alberta
T5J 2T0

TEACHER SUPPORT MATERIAL
OFFICE SERVICES 36

COURSE SEQUENCE

Office Services 36 is the final course in the Office Services 16–26–36 sequence. This sequence is one of two that comprise the business and office operations occupational cluster.

Office Services 36 prepares students for entry-level positions in business and office operations. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete this course and consider complementing it with one or more related course sequences; e.g., business services, warehouse services.

Students with particular adeptness and interest should also be encouraged to enroll in the regular business education program.

ENTRANCE REQUIREMENT

Students taking Office Services 36 must have completed satisfactorily Office Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools that already have related programs may wish to integrate teaching Office Services 36 with business education, office procedures, business calculations or typewriting courses.

Where a suitable lab is not available or where integration of students into regular business education programs is not possible, on-the-job training in the community should be considered. The teacher may wish to establish and use community partners to provide training under the teacher's supervision for all or part of the Office Services 36 course.

Students should be capable at keyboarding prior to their entry into a community partnership.

The student who has not been trained to touch keyboard may have limited office work available.

Equipment

- Bookstand
- Chairs
  - posture
  - reception
- Calculator
- Desks
  - computer
  - office
  - reception
- Desktop file holders
- File storage systems (assorted)
- Keyboard and printer
- Photocopier
- Postage meter/scale
- Shelving/storage
- Telephone
- Telephone switchboard
- Typewriter

Supplies

- General office supplies
- Message forms
- Software
  - word processing
  - accounting
- Telephone directories

OTHER LEARNING RESOURCES

A Guideline on Office Ergonomics, National Standard of Canada CAN/CSA – 2412–M89. Canadian Standards Association, 1989.

Farmer, Graham, Jenkins. *Personal Applications in Typewriting.* Gage Publishing Company, 1976. (Good for keyboarding applications.)

Lloyd, Rowe, Winger. *Typing Power Drills* (2nd Edition). McGraw-Hill Ryerson Limited, Gregg Division, 1965. (Good for reinforcing keyboard.)

Merchant, Ronald. *Basic Business Math and Electronic Calculations* (3rd Edition). Star Publishing Co., 1983.

Rowe, Lloyd, Winger. *Typing 300 Volume One* (2nd Edition). McGraw-Hill Ryerson Limited, 1977. (Excellent when teaching the keyboard initially.)

SOFTWARE

AppleWorks
Apple Computer Inc.
20525 Mariani Avenue
Cupertino, California 95014

Bank Street Writer
Scholastic Inc.
123 Newkirk Road
Richmond Hill, Ontario L4C 3G5

Microcomputer Keyboarding
Southwestern Publishing
℅Gage Publishing
164 Commander Blvd.
Agincourt, Ontario M1S 3C7

Typing Tutor III
Microsoft Corporation
10700 Northup Way
Bellevue, Washington 98004

See the latest Learning Resources Distributing Centre *Buyers Guide* for further information regarding software related keyboarding, word processing and related uses.

TEACHER SUPPORT MATERIAL

BUILDING SERVICES 36

COURSE SEQUENCE

Building Services 36 is the final course in the Building Services 16–26–36 sequence. This sequence is one of two that comprise the construction and fabrication occupational cluster.

Building Services 36 prepares students for entry-level positions in the residential and commercial construction and building repair industry. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the Building Services sequence and consider complementing it with one or more related course sequences; e.g., construction services and maintenance and hospitality services.

Students with particular adeptness and interest should also be encouraged to enroll in the regular building construction program.

ENTRANCE REQUIREMENT

Students taking Building Services 36 must have completed satisfactorily Building Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools that already have a building construction program may wish to integrate teaching Building Services 36 in the lab with the building construction course.

Teachers are encouraged to establish, use and monitor community partners to provide students with on-the-job training, under a teacher's supervision, during the course.

The following equipment, tools and supplies are recommended for teaching Building Services 36. If major items of equipment are not available, the use of community partners is suggested.

Equipment

Caulking gun
Electric drill
Hot tape carpet iron
Jigsaw
Ladders
Level
Power miter saws
Power plane
Protective safety clothing
Radial arm saws
Saw horses
Scaffolding
Sets of basic drafting equipment
Table saws
Tile cutter or diamond saw

Tools

Carpet kicker
Carpet knife
Chisels
Counter sink set
Framing squares
Hammers
Handsaws (wood, ceramic)
Hole saws
Plumb bob
Razor knives
Tape measures
Twist drill bits
Wood drill bits

Supplies

Fasteners, assorted
- adhesives
- nails
- nuts and bolts
- screws

General building/construction supplies

OTHER LEARNING RESOURCES

Alberta Building Code. Government of Alberta.

Atkinson, H. F. *Rough Carpentry and Masonry*. McGraw-Hill Ryerson Limited, 1981.

Canadian Wood Frame House Construction (Metric Edition). Canadian Mortgage and Housing Corporation, 1980. (Recommended learning resource for Building Construction 12-22-32.)

Canon and Hatby. *Building Construction Technology*. McGraw-Hill Ryerson Limited, 1982. (Recommended learning resource for Building Construction 12-22-32.)

Capotosto, J. *Basic Carpentry*. Reston Publishing, 1980.

Miller. *Building Construction – Materials and Methods*. Gage Educational Publishing Company, 1980. (Basic learning resource for Building Construction 12-22-32.)

Sutton, W. *Building Construction*. John Wiley & Sons Canada Limited.

In addition, Alberta Energy publishes the following series of booklets:

Basement Insulation
Caulking and Weather Stripping
Heating System Maintenance
Selecting a Heating System
Attic Insulation
Condensation Concerns
Re-siding for Energy Conservation
Windows
Ventilating Your Home
Water and Electricity
New Homes

These publications may be obtained by contacting:

Alberta Department of Energy
Energy Efficiency Branch
7th Floor, 9945-108 Street
Edmonton, Alberta
T5K 2G6
Telephone: 427-5300 Fax: 422-0494

Related other learning resources are listed in the next unit, Construction Services 36.

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TEACHER SUPPORT MATERIAL

CONSTRUCTION SERVICES 36

COURSE SEQUENCE

Construction Services 36 is the final course in the Construction Services 16–26–36 sequence. This sequence is one of two that comprise the construction and fabrication occupational cluster.

Construction Services 36 prepares students for entry into the residential and commercial construction and sub-trades industry. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the construction services sequence and consider complementing it with one or more related course sequences; e.g., building services, maintenance and hospitality services.

Students with particular adeptness and interest should also be encouraged to enroll in the regular building construction program.

ENTRANCE REQUIREMENT

Students taking Construction Services 36 must have completed satisfactorily Construction Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools that already have a building construction program may wish to integrate teaching Construction Services 36 in the lab with the building construction course.

Teachers are encouraged to establish, use and monitor community partners to provide students with on-the-job training, under a teacher's supervision, during the course.

The following equipment, tools and supplies are recommended for teaching Construction Services 36. If major items of equipment are not available, the use of community partners is suggested.

Equipment

Arc welding unit
Basic drafting equipment
Benches
Brooms
Compressed air
Cut-off saw
Dunk tank
Dustpans
Garbage cans
Jig saw
Oxyacetylene welding unit
Pedestal grinder
Pipe threading set
Pipe vise
Portable circular saw
Power hacksaw/bandsaw

Tools

Chipping hammer
Conduit-bending tool
Files
Framing square
Hammers
Hole-saw set
Levels
Pipe cutter
Pliers
Plumb bobs
Saws (wood, metal)
Screwdrivers
Shovels
Tape measures
Test lights (110v)
Welding gloves

Equipment

- Protective safety clothing
- Razor knives
- Soldering iron/gun
- Welding table

Supplies

- Fasteners, assorted
  - adhesives
  - nails
  - nuts and bolts
  - screws
- General building/construction supplies

Tools

- Welding helmet
- Wire brushes
- Wood bits

OTHER LEARNING RESOURCES

A Homeowner's Guide: Permits and Wiring (87–1025) Edmonton Power.

Alberta Building Code. Government of Alberta.

Althouse. *Modern Welding*. General Publishing, 1984. (Basic learning resource for Welding 12–22–32.)

Betts, R. M. (ed.). *Teacher's Guide for Exploring the Construction Industry*. McKnight Publishing Co., 1976.

Blankenbaker. *Modern Plumbing*. Goodheart-Wilcox, 1981. (Basic learning resource for Piping 12–22–32.)

Canadian Electric Code (15th Edition). Canadian Standards Association, 1986. (Basic learning resource for Electricity 12–22–32.)

Chasis, D. A. *Plastic Piping Systems* (2nd Edition). Industrial Press Inc., 1988.

Farm Welding (Agdex 785). Alberta Agriculture.

Gasfitting Information for Residential Property Owners. Alberta Labour, Gas Protection Branch.

Home and Farmstead Wiring Information. Alberta Labour, Electrical Protection Branch.

How to Read House Construction Drawings (Homedex 1700–41). Alberta Agriculture, 1985.

Illustrations for 1980 Alberta Plumbing and Drainage Act Regulations. Government of Alberta, 1980.

Kennedy, H. W. *Welding Technology*. Sams Publications, 1982. (Recommended learning resource for Welding 12–22–32.)

Low Energy Home Designs (Homedex 1799–71–3). Alberta Agriculture.

Meikle. *Plumbing from the Ground Up*. Holt, Rinehart and Winston of Canada Ltd., 1981. (Basic learning resource for Piping 12–22–32.)

Pender. *Welding* (Metric 3rd Edition). McGraw-Hill Ryerson Limited, 1986. (Basic learning resource for Welding 12-22-32.)

Plumbing and Drainage (O. C. 1284/77). Alberta Labour, Plumbing Services Branch.

Plumbing Information for Residential Property Owners. Alberta Labour, Plumbing Services Branch.

School Plant Maintenance Manual. School Plant Officials Society of Alberta, 1988.

TRAC Common Core: Oxyacetylene Cut and Weld. Province of British Columbia, Ministry of Advanced Education, 1978.

Tuttle. *Fundamentals of Oxyacetylene and Arc Welding*. Pitman Publishing, 1968. (Recommended learning resource for Welding 12-22-32.)

Weiss W. *Home Maintenance* (2nd Edition). Glenco Publishing, 1983.

Related other learning resources are listed in the previous section, Building Services 36.

TEACHER SUPPORT MATERIAL

CRAFTS AND ARTS 36

COURSE SEQUENCE

Crafts and Arts 36 is the final course in the Crafts and Arts 16–26–36 sequence. This sequence is one of two that comprise the creative arts occupational cluster.

Crafts and Arts 36 prepares students for entry-level positions in a variety of areas in the crafts and arts industry. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete this course and consider complementing it with one or more related course sequences; e.g., Technical Arts 36, esthetology, fashion and fabric services.

Students with particular adeptness and interest should also be encouraged to enroll in the regular art and/or visual communication program.

ENTRANCE REQUIREMENT

Students taking Crafts and Arts 36 must have completed satisfactorily Crafts and Arts 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

An ideal facility for Crafts and Arts 36 instruction would provide the physical resources to accommodate all of the skills identified in the Crafts and Arts 36 Profile. Laboratory/studio activities comprise the major components of the course, and these may be taught in a room that provides:

- safe and adequate studio facilities
- ample display space
- areas for viewing and discussing craftwork and artwork in large or small groups.

Schools already possessing art and visual communications programs may wish to integrate teaching Crafts and Arts 36 with these courses. Where a suitable lab is not available and/or where the integration of students is not possible, two alternatives are suggested:

1. use, with modifications, an existing lab/classroom
2. establish and use community partners to provide students with on-the-job instruction, under a teacher's supervision, for the majority of the Crafts and Arts 36 course.

Requirements for adopting the first alternative include the availability of facilities, tools and supplies usually associated with an art room. In addition to appropriate protective safety clothing, these may include:

Facility

- Area – work space should be planned to accommodate a maximum of fifteen students. Overcrowding interferes with both student safety and effective teaching of the art curriculum. Storage space, in addition to work space, should be determined on a per-student basis.

- Location
  - – on the ground floor with access to deliveries.
  - – a northern exposure is desirable, and the room should be isolated from regular classrooms (work noise is often a factor).
  - – direct access to the outdoors is desirable.
- Floors – washable surface.
- Doors – should have double doors to facilitate movement of equipment; also, two exits.
- Lighting – should have some windows and fluorescent full-spectrum lighting. Black-out facilities are essential for viewing slides, films and videos.
- Ventilation – windows that open; a fume exhaust hood.
- Electrical – wiring should be 110 and 220 with several electrical outlets on different circuits.
- Electronic – all appropriate jacks and outlets for electronic media (TV, video, computer, etc.).
- Teaching and research space – library space with a work table, gallery/display areas, effective audio-visual viewing space, an area for large and small group presentations.
- Storage space – a lockable walk-in supply room with adjustable or modular storage units; also, storage shelves and cupboards beneath counters in the classroom. All storage spaces should be lockable in view of community use of workrooms. Adequate storage space should also be provided for reference materials, works of art, models, slides and reproductions.

Display Space and Furniture

Display areas should accommodate both two- and three-dimensional works of various sizes.

- Tackboard – should be in all available space.
- Display shelves – adjustable shelves mounted on brackets.
- Dropped ceiling hangers – for hanging 3-D works.
- Outside the art room – display areas (tackboards, locking cabinets) should be located in other parts of the school, especially in hallways and common areas.

Classroom Equipment and Furniture

Sufficient equipment should be provided to allow independent work on large- and small-scale projects in a variety of media. The following are basic furnishings for a high school art room:

- Sinks – two peninsulas or island units with clay traps.
- White board – minimum 1200 mm × 1200 mm.
- Bookshelves – open shelves for reference books and textbooks.

- Counter and cupboard storage – sufficient space for art paper, drawing boards and supplies, projects in progress, audio-visual materials, models, artworks and reproductions.
- Steel cabinets for storing hazardous materials.
- Teacher's desk and a demonstration table.
- Filing cabinet.
- Art tables – individual student tables with tilted tops or large work tables with chairs or adjustable stools. Table-top easels for use on large work tables.
- Easels – 15 large easels for painting and presentations.
- Large paper cutter.
- Tool cabinet, with hand tools.
- Large wall screen.
- Slide projector, laser disc player, TV monitor, computer.
- Ceramic kiln – with automatic shut-off; kiln furniture. (A kiln closet with exhaust system is recommended.)
- Garbage cans – metal for waste, plastic (with lids) for storage.
- Clean-up equipment – broom, mop and pail, sponges, scrub brushes, dustpan.
- Metal drying rack.
- First aid kit/eyewash station.
- Paper towel dispensers.
- Workbench with vise.
- Fire extinguisher/fire blanket.

Art Materials and Tools

Ceramics

Clay – prepared
Canvas or cotton duck for tables
Modelling tools – manufactured, found objects
Glazes
Oxides
Kiln wash
Pyrometric cones
Sponges
Bamboo brushes
Plastic bags
Small plastic squeeze bottles
Plastic pails with lids for glaze storage
Kiln furniture
Rolling pin
Sieve
Heat resistant gloves
Wire clay cutters
Dipping tongs

Printmaking

Linoleum
Soft wood blocks
Carving tools
Whetstone
Printing inks (water based)
Silkscreen fabric, frames
Solvents (note hazards)
Inking boards
Brayers
Squeegees
Drying racks or lines
Roller press (positive feed)

Sculpture and Construction

Plaster of Paris
Ceramics materials
Wire
Sandpaper
Wallpaper paste
Newspapers
Modelling clay
Straws
Sticks, toothpicks
Adhesive, tapes, glue
Found materials
Soldering and welding tools and materials
Plastic pails
C-clamps
Files
Chisels, gauges mallets, hammers
Sponges
Modelling tools (manufactured and found)
Cardboard boxes, sheets, tubes
String
Knives, utility knives

Drawing

Drawing boards
Charcoal sticks
Conte sticks
Pencils – hard and soft
Pencil crayons
India ink, coloured inks
Straight pens
Felt tip pens – fine and thick
Wax crayons
Collection of found objects
Quills or reeds
Oil and chalk pastels
Magnifying glasses
Newsprint paper
Kraft paper
Parchment
Manilla paper
Transparent paper
Drawing paper
Coloured paper
Fingerpaint paper (for felt tip pens)
Drawing erasers

Fibres

Cotton (100 per cent – bleached or unbleached)
Burlap
Sewing needles and pins
Weaving needles or bodkins
Thread
Yarns, carded wool
Fabric dyes and fixatives
Batik wax
Cotton string
Fabric shears
Embroidery hoops or wooden frames
Plastic funnel
Simple frame looms
Iron
Large plastic bottles
Large plastic pails
Measuring spoons and cups
Rubber gloves
Brushes, wax applicators
Electric fry pans
Sewing machine

Found Materials

- Newspapers
- Magazines
- Paper bags, milk cartons
- Cardboard boxes, tubes
- Wood scraps, masonite
- Large and small jars
- Household artifacts
- Styrofoam scraps
- Plastic bags, bottles, pails
- Roll ends from newspaper
- Rags
- Aluminum plates, foil plates
- Egg cartons
- Bones
- Fabric scraps
- Yarn scraps, string, rope and cord
- Toothbrushes
- Old kitchen utensils, spools
- Clothing – costumes
- Foam rubber scraps
- Acoustic tile scraps
- Stones
- Shells
- Seed pods
- Dried flowers
- Driftwood
- Bark
- Gourds

Painting

- Brushes
  - small round
  - medium round
  - large flat
  - bamboo
  - medium flat
  - assorted wide
- Mixing tray, palettes
- Paint
  - tempera (block, powder, liquid)
  - acrylic
  - water colour
  - oil
- Primer
- Sponges
- Glass/plastic containers
- Easels
- Paper
  - manilla
  - cover
  - kraft
  - water colour
  - Mayfair
- Painting boards (for stretching water-colour paper)
- Painting surfaces
  - canvas and wood for stretchers
  - masonite
  - found objects

Read: "Hazardous Art Materials and Occupational Safety". *Art: Senior High Art Teacher Resource Manual.* Alberta Education, 1986 (pages 90–114).

OTHER LEARNING RESOURCES

An extensive list of print, visual and audio-visual resources is in the following documents:

- *Art: Senior High Art Teacher Resource Manual.* Alberta Education, 1986 (pages 54–89).
- *Art 10–20–30 Curriculum Guide.* Alberta Education, 1986 (page 5).

These learning resources may be used to complement projects, patterns, plans, etc., obtained from community partners involved in the design, construction and sale of craftwork and artwork.

TEACHER SUPPORT MATERIAL

TECHNICAL ARTS 36

COURSE SEQUENCE

Technical Arts 36 is the final course in the Technical Arts 16–26–36 sequence. This sequence is one of two that comprise the creative arts occupational cluster.

Technical Arts 36 prepares students for entry-level positions in the creative and graphic arts industries. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete this course and consider complementing it with one or more related course sequences; e.g., crafts and arts.

Students with particular adeptness and interest should also be encouraged to enroll in the visual communications or graphic arts programs.

ENTRANCE REQUIREMENT

Students taking Technical Arts 36 must have completed satisfactorily Technical Arts 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools that already have a visual communication or graphic arts program may wish to integrate the teaching of Technical Arts 36 in the lab along with the teaching of one or more of these programs. Where suitable facilities are not available, teachers are encouraged to establish, use and monitor community partners to provide students with on-the-job learning experiences.

The following equipment and tools are recommended for teaching Technical Arts 36. If major items of equipment are not available, the use of community partners is suggested.

Graphic Arts

A suitable area with appropriate equipment for designing, laying out and producing graphic communication samples. Equipment should include:

- duplicating, printing or computer equipment
- layout and design tools and equipment
- typesetting machine.

Photographic Arts

A suitable area to take photographs, develop the film, make prints with darkroom enhancement techniques and mount prints on card stock. Equipment should include:

- cameras (assorted)
- darkroom equipment
- film processing equipment
- mounting equipment
- photographic studio equipment
- process camera
- storage areas for paper, film and chemicals
- studio lighting for portraiture.

Media Arts

A suitable area with appropriate equipment to create video, television or stage productions. The equipment should include:

- audio-visual equipment
- lighting equipment
- set construction tools and equipment.

OTHER LEARNING RESOURCES

Biegeleisen, J. I. *Design and Print Your Own Posters*. Watson-Guptil, 1980.

Broekhuizen, Richard J. *Graphic Communications* (McKnight). Collier MacMillan Canada, Inc., 1979.

Cogoli. *Photo-Off Set Fundamental* (5th Edition). Collier MacMillan Canada, Inc., 1986. (Basic learning resource for Visual Communications 12–22–32.)

Hendry, William J. *Introduction to 12 Graphic Arts*. McGraw-Hill Ryerson Limited, 1987.

Hird, Kenneth F. *Understanding Graphic Arts*. Gage Educational Publishing Company, 1982. (Approved recommended learning resource for Graphic Arts 12–22–32.)

Kagy, Frederick D. *Graphic Arts*. Goodheart-Willcox. 1981.

Langford, Michael. *The Single Lens Reflex Handbook*. Knof, 1983.

Walker, Richard and Robert, E. Walker. *Exploring Photography*. Goodheart-Willcox, 1983.

TEACHER SUPPORT MATERIAL

NATURAL RESOURCE SERVICES 36

COURSE SEQUENCE

Natural Resource Services 36 is the final course in the Natural Resource Services 16–26–36 sequence. This sequence has been developed as three occupational areas: mining, forestry, oil and gas.

Natural Resource Services 36 prepares students for entry-level positions in natural resource industries. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete this course and consider complementing it with one or more related course sequences; e.g., agricultural mechanics, horticultural services, warehouse services, building services.

ENTRANCE REQUIREMENT

Students taking Natural Resource Services 36 must have completed satisfactorily Natural Resource Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Few schools possess the facilities and equipment to provide "on-campus" instruction in Natural Resource Services 36. In jurisdictions where a similar course has been offered, the most effective learning experiences were facilitated through the development of school-community partnerships with one or more local operations.

Teachers are encouraged to establish, use and monitor community partners who provide students with on-the-job training or experiences during the course.

Necessary equipment and tools may include:

- hand and power tools
- protective safety clothing.

OTHER LEARNING RESOURCES

Forestry

Farming Canada's Forest. Forest Management and Silviculture. Canadian Pulp and Paper Association, Quebec.

Forestry. Alberta Correspondence School, Alberta Education, 1975.

Lash, G. H. *A Walk in the Forest*. Canadian Pulp and Paper Association, Quebec.

Managing the Forest. Western Educational Development Group. Faculty of Education, University of British Columbia, 1985.

Other teacher resources related to forestry and the pulp and paper industry may be obtained from:

Alberta Forest Service Information Centre
9920 – 108 Street
Edmonton, Alberta
T5K 2M4
(427–3590)

or 703 – 6 Avenue SW
Main Floor
Calgary, Alberta
T2P 0T9
(297-6324)

The Alberta Forestry Association
311 Alberta Block
10526 – Jasper Avenue
Edmonton, Alberta
T5J 1Z7

Northern Forest Research Centre
Canada Forestry Service
Environment Canada
5320 – 122 Street
Edmonton, Alberta
T6H 3S5

The Canadian Pulp and Paper Association
23rd Floor, Sun Life Building
1155 Metcalfe Street
Montreal, Quebec
H3B 2X9

Oil and Gas

A Guide to Business Opportunities in the Oil and Gas Industry in Northern Alberta. Northern Alberta Development Council.

Drilling Rig Task Details and Performance Standards for the Floorhand. Canadian Association of Oil Well Drilling Contractors, 1981.

Gerding, M. (ed.) *Fundamentals of Petroleum* (3rd Edition). Petroleum Extension Service, The University of Texas at Austin, 1986.

This teacher resource and others are available from:

Petroleum Industry Training Services
Bay 13, 2115 – 27 Avenue, NE
Calgary, Alberta

Introduction to Oil and Gas Production. American Petroleum Institute, Dallas, Texas.

McRory, R. E. *Energy Alberta. Oil Sands and Heavy Oils of Alberta*. Alberta Energy and Natural Resources, 1982.

Oil Sands and Heavy Oils of Alberta. Alberta Energy and Natural Resources.

Our Petroleum Challenge – The New Era. The Petroleum Resources Communication Foundation, Calgary, Alberta.

Training Planning Guide. Petroleum Industry Training Service, 1988–89.

Other materials are available from:

Alberta Community and Occupational Health
10030 – 107 Street
Edmonton, Alberta
T5J 3E4

Mining

Alberta Coal: Energy for the World. Office of Local Research and Technology, Alberta Energy.

Mining. What Mining Means to Canada. The Mining Association of Canada, 1977.

Other materials are available from:

The Coal Association of Alberta
Suite 301, 1000 Eight Avenue SW
Calgary, Alberta
T2P 3M7

TEACHER SUPPORT MATERIAL

CHILD AND HEALTH CARE SERVICES 36

COURSE SEQUENCE

Child and Health Care Services 36 is the final course in the Child and Health Care Services 16-26-36 sequence. This sequence has been developed as one of four course sequences that comprise the personal and public services occupational cluster.

Child and Health Care Services 36 prepares students for entry-level positions in the child and health care industries. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete this course and consider complementing it with one or more related course sequences within the school or at community learning centres.

Students with particular adeptness and interest should be encouraged to enroll in the regular vocational health care program.

ENTRANCE REQUIREMENT

Students taking Child and Health Care Services 36 must have completed satisfactorily Child and Health Care Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools already possessing a health care program may wish to integrate teaching Child and Health Care Services 36 in the same lab area. Where a lab is not available and/or where the integration of students is not possible, three alternatives are suggested:

1. use, with minor modification, an existing lab/classroom
2. use the home economics lab area
3. establish and use community partners to provide students with on-the-job instruction under a teacher's supervision.

Major requirements for adopting the first alternative include the availability of:

- homelike set-up
- sanitary and secure storage areas
- sink and hot/cold water facilities.

Basic child care equipment and supply items include:

- baby bottles and nipples
- cloth diapers and pins
- crib
- disposable diapers
- dolls
- high chair
- infant seat.

Adult health care equipment and supply items include:

- daybed or sofa.

First aid equipment and supply items include:

- basic first aid kit
- selection of bandages.

Nutrition equipment and supply items include:

- cooking utensils
- dishes
- refrigerator
- stove
- table and chairs.

Homemaking equipment and supply items include:

- cleaning equipment
- cleaning supplies
- dryer
- washer.

OTHER LEARNING RESOURCES

Averbach, Stevanne. *The Whole Child.* G. P. Putnam and Sons, New York, 1981.

Canada's Food Guide Handbook. Health and Welfare Canada, 1982.

Child's Body, A Parent's Manual. Paddington Press Ltd., New York and London, 1977.

Child Care: Outdoor Safety, 1990.
- Setting Up the Rules (19 minutes)
- The Playground (18 minutes)
- Kids on the Go (16 minutes)

Series of three videos plus a study guide available from:

Bergwall Video Productions, Inc.
P. O. Box 238
Garden City, New York, 11530–0238.

Howe, Phyllis. *Basic Nutrition in Health and Disease.* W. B. Saunders Company, 1981.

Huber, H., Spatz, A., C. Coviello. *Homemaker/Home Health Aide.* Delmar Publishers Inc., New York, 1985.

Illerbrun, Marley. *Long-Term Care Aide and Homemaker.* Minister of Education, Province of British Columbia, 1984.

Kaluger, George, Meriem Kaluger. *Human Development, the Span of Life.* C. V. Mosby Company, 1979.

St. John Ambulance. *The Complete Handbook of Family Health Care.* St. John Priory of Canada Properties, 1984.

St. John Ambulance. *First Aid Safety Oriented*, 1987.

Zucker, Elana. *Being a Homemaker and Home Health Aide.* Robert J. Brady Co., 1982.

TEACHER SUPPORT MATERIAL

ESTHETOLOGY 36

COURSE SEQUENCE

Esthetology 36 is the final course in the Esthetology 16–26–36 sequence. This sequence has been developed as one of four that comprise the personal and public services occupational cluster.

Esthetology 36 prepares students for entry-level positions in the personal service industry. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the esthetology sequence and consider complementing it with one or more related course sequences; e.g., hair care, child and health care services.

Students with particular adeptness and interest should be encouraged to enroll in the regular vocational beauty culture program.

ENTRANCE REQUIREMENT

Students taking Esthetology 36 must have completed satisfactorily Esthetology 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools already possessing a beauty culture program may wish to integrate teaching Esthetology 36 in the beauty culture lab with beauty culture courses. Where a lab is not available and/or where the integration of students is not possible, two alternatives are suggested:

1. use, with minor modifications, an existing lab/classroom
2. establish and use community partners to provide students with on-the-job instruction under a teacher's supervision for the majority of the Esthetology 36 course.

Major equipment, tools and supplies required include:

Equipment

Chairs (hydraulic)
- facial
- styling

Clothes washer and dryer
Facial machine
Magnifier
Mirrors
- table
- hand

Protective safety clothing

Tools

Brushes
- hair
- makeup

Capes
- makeup
- comb-out
- shampoo

Combs
Eyelash grooming tools
Manicure tools (manual or electric)
- scissor
- nipper
- pusher

Oil bath
Tweezers
Waxing unit

Supplies

Cosmetics
- facial
- manicure

Cleaning supplies
False eyelashes and adhesives
Nail repair supplies
Orangewood sticks
Towels
- cloth
- paper

Wax

OTHER LEARNING RESOURCES

Colletti, Anthony B. *A Complete Question and Answer Guide to Hairdressing and Cosmetology.* Keystone Publications, 1978.

Dalton, John W. *The Professional Cosmetologist* (3rd edition). West Publishing Company, 1983.

Dicard Villa, Louis. *Cosmetology. The Art of Making Up.* Gage Educational Publishing Company, 1987.

Gerson, Joel. *Standard Textbook for Professional Estheticians.* Milady Publishing Corp., 1983.

TEACHER SUPPORT MATERIAL

FASHION AND FABRIC SERVICES 36

COURSE SEQUENCE

Fashion and Fabric Services 36 is the final course in the Fashion and Fabric Services 16–26–36 sequence. This sequence has been developed as one of four that comprise the personal and public services occupational cluster.

Fashion and Fabric Services 36 prepares students for entry-level positions in the fashion, fabric sales, service and cleaning industries. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete this course and consider complementing it with one or more related course sequences; e.g., esthetology, hair care and business services.

Students with particular adeptness and interest should be encouraged to enroll in the regular clothing and textile program.

ENTRANCE REQUIREMENT

Students taking Fashion and Fabric Services 36 must have completed satisfactorily Fashion and Fabric Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools already possessing a clothing and textiles program may wish to integrate teaching Fashion and Fabric Services 36 in the lab with the clothing and textiles courses. Where a lab is not available and/or where the integration of students is not possible, two alternatives are suggested:

1. use, with minor modifications, an existing lab/classroom and complement in-class instruction with community partnerships
2. establish and use community partners to provide students with on-the-job instruction, under a teacher's supervision, for the majority of the course.

Many of the equipment, tool and supply items required to teach this course are similar to those found in a clothing and textiles lab. Items used for professionally cleaning, drying and finishing fabrics and fashions may not commonly be available in a school.

Equipment

Cash register
Clothes washer and dryer
Cutting table
Display equipment; e.g., platforms, racks, pedestals
Finishing equipment; e.g., leggers, toppers
Mannequin and spriget (stand)
Protective safety clothing
Serger
Steam cleaner
Steam presser
Stepladder
Sewing machine with attachments

Tools

Blotters
Clothes brushes
Hand tools; e.g., screwdriver
Iron
Ironing table/board
Laundry baskets
Scissors/shears
Sewing needles
Sieve
Tape measure
Tweezers

Supplies

Acetone
Coloured paper (assorted)
Display materials and props
Fabrics
Fashions (assorted)
Fashion accessories
Notions; e.g., buttons, zippers
Patterns
Pins
Stain removers
Tailor's chalk
Thread
Washing supplies
WHMIS labels

OTHER LEARNING RESOURCES

Ashburn, Alice B. *Fashion and Fundamentals*. Extension, Instruction and Materials Centre, The University of Texas at Austin, 1984. (An answer book is also available.)

Complete Guide to Sewing. Reader's Digest Association (Canada) Ltd., 1979.

Friend, Cathy, Parker, Frances, and Jeanette Weber. *Clothing: Fashion, Fabrics, Construction*. Teacher's Manual. Bennett and McKnight, 1986.

Graef, J. R. and J. B. Strom. *Concepts in Clothing* (1st Canadian Edition). McGraw-Hill Ryerson Limited, 1979.

Kefgen, M. and P. Touchie-Specht. *Individuality in Clothing Selection and Personal Appearance* (3rd Edition). Collier Macmillan Canada Inc., 1981.

Lopez, Karen, Richmond, Mary and Ramona Rowan. *Clothing: Fashion, Fabrics, Construction*. Teacher's Resource Book. Bennett and McKnight, 1986.

Weber, Jeanette. *Clothing: Fashion, Fabrics, Construction*. Bennett and McKnight, 1986.

Various brochures, book and other information may be obtained from the following sources:
Alberta Professional Dry Cleaner's Association
P.O. Box 1048
Red Deer, Alberta
T4N 6S5
(The telephone number of the association's president will change each year. Contact should be made through a local dry-cleaning operation.)

Alberta Safety Council
201, 10526 Jasper Avenue
Edmonton, Alberta
T5J 1Z7
Telephone: (403) 428–7555

Both the Alberta and the Canada Safety Councils provide safety information in the areas of:

- dry-cleaning and pressing
- spotting or spot removing
- pressing or garment finishing
- safety of auxiliary dry-cleaning employees
- use of sewing machines, tools
- fabric testing, cleaning and repairs.

Canadian Cleaner and Launderer
P.O. Box 968
Oakville, Ontario
L6J 5E8
Telephone: (416) 825–2415

Consumer and Corporate Affairs Canada
Edmonton District Office
10225 – 100 Avenue
Edmonton, Alberta
T5J 0A1
Telephone: (403) 420–2485

DOW Chemical Company
Modelind Road
P.O. Box 1012
Sarnia, Ontario
N7T 7K7

Brochures available include:

- *Drycleaning: A Basic Handbook*
- *How to Get Along with Your Solvent*
- *Safety is Good Business, Make it a Part of Yours.*

TEACHER SUPPORT MATERIAL

HAIR CARE 36

COURSE SEQUENCE

Hair Care 36 is the final course in the Hair Care 16–26–36 sequence. This sequence has been developed as one of four that comprise the personal and public services occupational cluster.

Hair Care 36 prepares students for entry-level positions in the beauty/hairdressing industry. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the hair care sequence and consider complementing it with one or more related course sequences; e.g., esthetology and business services.

Students with particular adeptness and interest should be encouraged to enroll in the vocational beauty culture program.

ENTRANCE REQUIREMENT

Students taking Hair Care 36 must have completed satisfactorily Hair Care 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools already offering a beauty culture program may wish to integrate teaching Hair Care 36 in the beauty culture lab with beauty culture courses. Where a lab is not available and/or where the integration of students is not possible, two alternatives are suggested:

1. use, with minor modifications, an existing lab or classroom
2. establish and use community partners to provide students with on-the-job instruction, under a teacher's supervision, for the majority of the Hair Care 36 course.

Equipment

Chairs
- hydraulic
- reception

Clothes washer and dryer
Mannequins and stands
Mirrors
- table
- hand

Protective safety clothing
Trolleys
- permanent waving
- setting

Tools

Brushes
Capes
Clips
Combs
- detangler
- setting
- tail

Curling irons (assorted)
Hair dryers
- floor dryer
- hand blow dryer

Heating cap
Permanent waving tools
- rods and fasteners
- caps

Rollers and fasteners
Scissors
- haircutting
- utility

Towels

Supplies

Chemicals
- shampoo
- permanent waving
- colouring

Colouring charts
Hair goods
Nitrazene paper
Lotions/sprays
- conditioning
- setting
- finishing

OTHER LEARNING RESOURCES

Colletti, Anthony B. *A Complete Question and Answer Guide to Hairdressing and Cosmetology*. Keystone Publications, 1978.

Dalton, John W. *The Professional Cosmetologist* (3rd Edition). West Publishing Co., 1983. (Authorized Text.)

Manfredonia, Salvatore J. *28 Styles for Student Practice*. Milady Publishing Corp., 1983.

Simpson, Sim (ed.) *Curling Irons*. Milady Publishing Corp., 1969.

TEACHER SUPPORT MATERIAL

COMMERCIAL FOOD PREPARATION 36

COURSE SEQUENCE

Commercial Food Preparation 36 is the final course in the Commercial Food Preparation 16–26–36 sequence. This sequence has been developed as one of three that comprise the tourism and hospitality occupational cluster.

Commercial Food Preparation 36 prepares students for entry-level positions in the tourism and hospitality industry. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the commercial food preparation sequence and consider complementing it with one or more related course sequences; e.g., food services, maintenance and hospitality services.

Students with particular adeptness and interest should be encouraged to enroll in the vocational food preparation program.

ENTRANCE REQUIREMENT

Students taking Commercial Food Preparation 36 must have completed satisfactorily Commercial Food Preparation 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools already offering a food preparation program may wish to integrate teaching Commercial Food Preparation 36 in the cafeteria or lab with the food preparation courses. Where a lab is not available and/or where the integration of students is not possible, two alternatives are suggested:

1. use, with minor modifications, an existing classroom or home economics lab
2. establish and use community partners to provide students with on-the-job instruction, under a teacher's supervision, for the majority of the Commercial Food Preparation 36 course.

Teachers are encouraged to establish, use and monitor community partners to provide students with on-the-job experiences during the course.

The following tools and equipment are recommended for teaching Commercial Food Preparation 36. If major items of equipment are not available, the use of community partners is suggested.

- Cleaning and sanitation equipment
- Commercial-style kitchen containing:
  - sets of basic kitchen utensils, implements and equipment suitable for commercial cutting, chopping, spreading, serving, measuring, mixing, etc.
  - grills, stoves and ovens for cooking and baking commercial quantities of food
- Protective safety clothing
- Serving dishes and utensils
- Suitable storage for food products and supplies.

OTHER LEARNING RESOURCES

Canada Food Guide Handbook (Revised), 1982.

This is a multi-media set of six videotapes and support materials. The following topics are addressed:

1. Food delivery and storage
2. Food preparation
3. Personal hygiene
4. Temperature control
5. Pest control
6. Basic cleaning.

Catering with Care: Health, Hygiene and Safety.

Available from:

Filmwest Associates
10619 – 124 Street
P.O. Box 11028
Edmonton, Alberta
T5J 3K3

Food Production, Management and Services. Mid-America Vocational Consortium, Stillwater, Oklahoma.

Food Preparation: Basic Guidelines for Baking, Frying and Salads. Proctor and Gamble Educational Series, Toronto, Ontario, 1982.

Marsh, B. *Professional Cookery.* McGraw-Hill Ryerson Limited, 1985.

Public Health Act, Food Regulation. Province of Alberta.

Ray, M. F. and B. A. Dondi. *Professional Cooking and Baking.* Glenco Publishing, 1981.

The following learning resources are published to support this text:

- Recipe File, M. F. Ray, 1981
- Student Activity Guide, 1981
- Student Workbook, 3rd Edition, 1988
- Teacher Resource Guide, 3rd Edition, 1988.

Wattie, H. and E. D. Whyte. *Canadian Cookbook* (SI Metric Edition). McGraw-Hill Ryerson Limited, 1977.

TEACHER SUPPORT MATERIAL

FOOD SERVICES 36

COURSE SEQUENCE

Food Services 36 is the final course in the Food Services 16–26–36 sequence. This sequence has been developed as three that comprise the tourism and hospitality occupational cluster.

Food Services 36 prepares students for entry-level positions in the tourism and hospitality industry. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the food services sequence and consider complementing it with one or more related course sequences; e.g., commercial food preparation, business services.

Students with particular adeptness and interest should be encouraged to enroll in the vocational food preparation program.

ENTRANCE REQUIREMENT

Students taking Food Services 36 must have completed satisfactorily Food Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools already having a food preparation program may wish to integrate teaching Food Services 36 in the cafeteria and lab with the food preparation courses. Where a suitable lab is not available and/or where the integration of students is not possible, the alternatives are:

1. use, with minor modifications, an existing kitchen area, food lab, classroom, staff dining room/lounge. Major requirements for adopting this alternative include the availability of:
   - basic supply of tableware—dishes, flatware, glassware
   - basic supply of serving equipment, tools and supplies
   - cash register or cash drawer
   - protective safety clothing
   - sidestand or equivalent
   - suitable sink, cloakroom, changing room
   - suitable space to create various types of food service layouts
   - tables and chairs to run the facility.
2. establish and use community partners to provide students with on-the-job instruction, under a teacher's supervision, for the majority of the course.

OTHER LEARNING RESOURCES

Catering with Care: Health, Hygiene and Safety.

Available from:

Filmwest Associates
10619 – 124 Street
P.O. Box 11028
Edmonton, Alberta
T5J 3K3

This is a multimedia set of six videotapes and support materials that focus on:

1. Food delivery and storage
2. Food preparation
3. Personal hygiene
4. Temperature control
5. Pest control
6. Basic cleaning.

Food and Beverage Service. (Instructor's Guide.) Educational Institute of the American Hotel and Motel Association.

Food Production, Management and Services. Mid-America Vocational Consortium, Stillwater, Oklahoma.

Public Health Act, Food Regulation. Province of Alberta.

Travel Alberta, Edmonton, Alberta (Telephone (403) 427–7612). Films, tapes and other materials may be available.

TEACHER SUPPORT MATERIAL

MAINTENANCE AND HOSPITALITY SERVICES 36

COURSE SEQUENCE

Maintenance and Hospitality Services 36 is the final course in the Maintenance and Hospitality Services 16–26–36 sequence. This sequence is one of three that comprise the tourism and hospitality occupational cluster.

Maintenance and Hospitality Services 36 prepares students for entry-level positions in the tourism and hospitality industry. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the maintenance and hospitality services sequence and consider complementing it with one or more related course sequences; e.g., commercial food preparation, food services, horticultural services, building services and construction services.

ENTRANCE REQUIREMENT

Students taking Maintenance and Hospitality Services 36 must have completed satisfactorily Maintenance and Hospitality Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Where a lab is not available, two alternatives are suggested:

1. use the school's caretaking area, equipment and resources and use, with minor modifications, an existing classroom or home economics lab as a base for in-class instructional units
2. establish and use community partners to provide students with on-the-job instruction, under a teacher's supervision, for the majority of the course.

Major requirements for adopting the first alternative include the availability of:

- proper storage areas
- sufficient electrical outlets to run a number of machines
- suitable sink (preferable floor) facilities.

The suggested equipment, tools and supplies for Maintenance and Hospitality 36 are:

Equipment

- Chemical storage area and cabinet
- Garbage bins
- Garbage cans
- Garbage receptacles
- Ladders
- Power floor machines
- Pressure washer
- Protective safety clothing
- Utility carts
- Vacuum cleaners
- Wet-floor signs

Tools

Assorted hand tools
Brooms
Brushes
Carpet and upholstery cleaning equipment
Chalk brushes
Dust mop tray
Dustpans
Floor squeegees
Mops (floor, finish, dust, wet)
Pads (stripping, abrasive, polishing)
Pails with wringer attachments
Plumbing augers
Safety glasses/face shields
Sponges
Tape measures
Toilet plunger
Vinyl aprons
Vinyl gloves
Window squeegees

Supplies

Chalk
Chemical cleaners
Chemical disinfectants
Electrical tape
Extension cord parts
Garbage cans
Pressure washer soap
Rags

OTHER LEARNING RESOURCES

Betts, R. M. (ed.) *Teacher's Guide for Exploring the Construction Industry.* McKnight Publishing Company, 1976.

Gellnev, S. (ed.) *Do It Yourself Flooring* (1st Edition). Lane Publishing, 1982.

Griflin, W. R. *Comprehensive Custodial Training Manual.* Cleaning Consultant Services Inc., Seattle, Washington, 1985.

School Plant Maintenance Manual. School Plant Officials Society of Alberta, 1988.

Smith, E. R. *Custodial Curriculum.* Curriculum Development Project, Final Report, Renton Vocational Technical Institute, 1986.

Vandervort, D. W. (ed.) *Basic Carpentry* (1st Edition). Lane Publishing, 1972.

Weiss, W. *Home Maintenance* (2nd Edition). Glenco Publishing, 1983.

Wilks, G., M. Stokes. *Building Service Worker Curriculum for Special Needs Students.* Alberta Vocational Centre, 1987.

Instructional Safety Objectives. FW Vocational/Technical Training Courses. Canada Safety Council.

The following videotapes are part of a series of custodial maintenance demonstration tapes:

- General Cleaning
- Orientation to Institutional Cleaning
- Periodic Carpet Cleaning.

For further information and to access copies of these tapes contact:

ACCESS Network
Media Resource Centre
295 Midway Park SE
Calgary, Alberta
T2X 2A8
Telephone: 1-800-352-8293 Fax: 256-6837

TEACHER SUPPORT MATERIAL

AUTOMOTIVE SERVICES 36

COURSE SEQUENCE

Automotive Services 36 is the final course in the Automotive Services 16–26–36 sequence. This sequence is one of three that comprise the transportation occupational cluster.

Automotive Services 36 prepares students for entry-level positions in the automotives industry. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the automotive services sequence and consider complementing it with one or more related course sequences; e.g., service station services, agricultural mechanics, warehouse services.

Students with particular adeptness and interest should be encouraged to enroll in the vocational automotives program.

ENTRANCE REQUIREMENT

Students taking Automotive Services 36 must have completed satisfactorily Automotive Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools already having an automotives program may wish to integrate teaching Automotive Services 36 in the automotives lab with the vocational automotives courses. Teachers are encouraged to establish and use community partners to provide students with on-the-job instruction, under a teacher's supervision, for the majority of the Automotive Services 36 course.

Automotives Services 36 should be taught in a lab or shop designed for automotives work, and a suitably qualified teacher and/or supervisor should be available to direct the learning process and to ensure that necessary safety practices are followed.

Basic equipment suggested for Automotive Services 36 include:

Equipment

Air compressor
Carburetor mounting fixture
Engine stand
Floor jack
Hoist
Oil drain mobile
Pressure washer
Safety stands
Tire balancer
Tire changer
Tire tank
Vacuum cleaner
Waste oil storage tank

Tools

Bleeding bottle and hose
Brake tool sets
Car wash brush
Compressor tester
Cooling system pressure tester kit
Grease gun
Oil pressure test kit
Outside micrometre, imperial 0–1 inches
Outside micrometre, metric 0–25 mm
Ratchet and socket sets
Screwdriver sets
Vacuum tester kit
Wrench sets

Components, Samples and Supplies

Carburetors
Disc brake unit
Engine parts
Engine samples
Fastener sample kit
Front drum brake unit w/o adjusting mechanism
Lubricants
Measuring sample kit
Parts charts/books
Rear bendix brake unit
Rims
Shop preferences
Tires

OTHER LEARNING RESOURCES

Alley, Walter and Billiet Walter. *Disc and Drum Brake Service* (2nd Edition). American Technical Society, 1974.

Barbarossa, Fred. *The Car Care Book* (1st Edition). South-Western Publishing, 1983.

Crouse, William. *Automotive Mechanics* (2nd Canadian Edition). McGraw-Hill Ryerson Limited, 1987. (Approved basic learning resource for automotives.)

Crouse, William. *Automotive Service Business* (1st Edition). McGraw-Hill Ryerson Limited, 1973.

Disc Brake Manual (#9424). Ammco Tools Inc.

Hoyt, Wade and Ian Walter (ed.). *Complete Car Care Manual* (1st Edition). The Readers' Digest Association, 1981.

Kelley, Lee (ed.). *Basic Automotive Tune Up and Test Equipment*. Petersen Publishing, 1977.

Nash, Frederick C. *Automotive Technology* (3rd Edition). McGraw-Hill Ryerson Limited, 1986.

Stockel, Martin. *Auto Mechanics Fundamentals* (3rd Edition). Goodheart-Wilcox, 1978.

Stockel, Martin. *Auto Service and Repair* (3rd Edition). Goodheart-Wilcox, 1978.

Thiessen, Frank and Davis Dales. *Automotive Principles and Service* (2nd Edition). Prentice-Hall Canada Ltd., 1984. (Approved basic learning resource for automotives.)

Thiessen, Frank and Davis Dales. *Automotive Principles and Service Study Guide and Workbook* (1st Edition). Reston Publishing, 1981.

Other references should include:

Automotive Accessories and Supply Catalogues
Automotive/Industrial Supply House Catalogues
Automotive Periodicals
Automotive Tool and Equipment Supply House Catalogues
Telephone Advertising Directories.

TEACHER SUPPORT MATERIAL

SERVICE STATION SERVICES 36

COURSE SEQUENCE

Service Station Services 36 is the final course in the Service Station Services 16–26–36 sequence. This sequence is one of three that comprise the transportation occupational cluster.

Service Station Services 36 prepares students for entry-level positions in the automotive service industry. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the service station services sequence and consider complementing it with one or more related course sequences; e.g., automotives services, agricultural mechanics, warehouse services.

Students with particular adeptness and interest should be encouraged to enroll in the vocational automotives program.

ENTRANCE REQUIREMENT

Students taking Service Station Services 36 must have completed satisfactorily Service Station Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools already having an automotives program may wish to integrate teaching Service Station Services 36 in the automotives lab with the vocational automotives courses. For the majority of the course, teachers are encouraged to establish and use community partners to provide students with on-the-job instruction, under a teacher's supervision, for the majority of the Service Station Services 36 course.

Basic equipment, tools and other items suggested for Service Station Services 36 include:

Equipment

Air compressor
Cooling system pressure tester kit
Creepers
Floor jack
Gear oil pump
Grease gun
Hoist
Impact wrench
Oil drain mobile
Power flusher
Pressure washer
Safety stands
Time clock
Tire balancer
Tire changer
Tire tank
Trouble lights
Vacuum cleaner
Waste oil storage tank

Tools

Adjustable wrenches
Air lines and hoses
Antifreeze hydrometer
Battery cable clamp puller
Battery filler jug
Battery terminal brush (post cleaner)
Drain pans
Funnels
Hammers
Impact socket set
Inspection mirror
Oil filter wrench
Pliers
Punches and chisels set
Ratchet and socket set
Screwdriver set
Tire air chuck
Tire patch stitcher
Tire plug installation tool
Tire plug rasp
Tire pressure gauge
Valve core tool
Valve stem tool
Wheel weight pliers
Wrench set

Fuel Sales Equipment

Bulk fuel tanks
Business forms
Credit card imprinter
Dipping stick
Fuel pumps
Tank charts
Telephone

OTHER LEARNING RESOURCES

Barbarossa, Fred. *The Car Care Book* (1st Edition). South-Western Publishing, 1983.

Car Care Guide. Check Chart Division of H. M. Gousha Co., 1980.

Crouse, William. *Automotive Mechanics* (2nd Canadian Edition). McGraw-Hill Ryerson Limited, 1987. (Approved basic learning resource for automotives.)

Crouse, William. *Automotive Service Business* (1st Edition). McGraw-Hill Ryerson Limited, 1973.

Hoyt, Wade and Ian Walter. (ed.) *Complete Car Care Manual* (1st Edition). The Readers' Digest Association, 1981.

Leaking Underground Storage Tanks. Environment Canada, (Appendix 2).

Management of Underground Petroleum Storage Inventory. The National Automotive Trades Association of Canada, (Appendix 3).

Nash, Frederick C. *Automotive Technology* (3rd Edition). McGraw-Hill Ryerson Limited, 1986.

Stockel, Martin. *Auto Service and Repair* (3rd Edition). Goodheart-Wilcox, 1978.

Retail Gasoline Dealers Association of Nova Scotia. *Gasoline and Diesel Oil Meter and Dip Book*. Automotive Retailer Association (Alberta), (Appendix 1).

Thiessen, Frank and Davis Dales. *Automotive Principles and Service* (2nd Edition). Prentice-Hall Canada Inc., 1984. (Approved basic learning resource for automotives.)

Automotive Retailers Association
(Alberta)

Gasoline and Diesel Oil Meter and Dip Book

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RECOMMENDED BY
ALBERTA DEPARTMENT OF LABOR
FIRE PREVENTION BRANCH

ALBERTA ENVIRONMENT
PROVINCE OF ALBERTA

ENVIRONMENT CANADA
OTTAWA

Dates:

From ____________________ To ________________________

Station:

Name ____

Address ____

DIPPING THE TANKS

Tank gauging is the method for measuring the level of product in a storage tank so the gross volume can be calculated via a tank calibration table. To use faulty equipment or improper techniques is of no benefit. Consequently, to insure the most accurate gauging is obtained, the following must be noted:

1. Always use a gauge stick of proper design.
2. Never use a gauge stick which has a weathered condition. A weathered stick will cause the product to "creep" indicating an inaccurate product level.
3. Never drop or bounce the gauge stick in the tank. These actions create product splash, indicating an inaccurate product level. In addition, dropping or bouncing the gauge stick could puncture a fibreglass storage tank.
4. Always lower the gauge stick slowly into the tank until it "taps" bottom, then remove immediately, reading the product cut level to the nearest cm.
5. Never gauge a tank for determining product loss/gain at a time different from taking meter readings and/or while the tank is in use as a dispenser.
6. Always verify tankage for water by using water finding paste at each gauging and reduce product volume by the water amount. If the water level changes, call your oil company representative immediately.
7. Never use the tank gauge from only one tank which is manifolded to another tank as the gauge representing both tanks. All tankage must be gauged separately.
8. Always insure the proper tank calibration table is used for the particular tank(s) being gauged.

GASOLINE AND DIESEL DAILY INVENTORY CONTROL RECORD

DATE:

TIME:

	PUMP METER READINGS			
PUMP NO.	PREMIUM UNLEADED	REGULAR UNLEADED	REGULAR LEADED	DIESEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
(A) Total Today's Closing Pump Meter Readings				
(B) Total Yesterday's Closing Pump Meter Readings				
(C) Total Litres Dispensed Today (A minus B)				

STORAGE TANK DIPS			
TANK	PRODUCT LEVEL (cm)	LITRES	WATER LEVEL (cm)
PREMIUM UNLEADED			
1			
2			
TODAY'S Tank Dip Totals (enter in Line G)			
REGULAR UNLEADED			
1			
2			
TODAY'S Tank Dip Totals (enter in Line G)			
REGULAR LEADED			
1			
2			
TODAY'S Tank Dip Totals (enter in Line G)			
DIESEL			
1			
2			
TODAY'S Tank Dip Totals (enter in Line G)			

(D) Opening Inventory (i.e. Yesterday's Tank Dip Totals)				
(E) Products Purchased This Date				
(F) Tank Inventory to Be Accounted for Today (D Plus E)				
(G) Inventory On Hand (TODAY'S Tank Dip Totals)				
(H) Gone from Tanks Today (F minus G)				
SHORTAGE (IF H GREATER THAN C)	(−)	(−)	(−)	(−)
OVERAGE (IF C GREATER THAN H)	(+)	(+)	(+)	(+)

PRODUCTS PURCHASED THIS DATE

Invoice No. __________

Time of Delivery: __________

Product	Quantity*
Premium Unleaded	
Regular Unleaded	
Regular Leaded	
Diesel	

(*Enter these numbers in Column "E")

MONTHLY PETROLEUM PRODUCT INVENTORY SUMMARY

MONTH YEAR

	PREMIUM UNLEADED		REGULAR UNLEADED		REGULAR LEADED		DIESEL	
	DAILY (+OR –)	CUMULATIVE (+OR –)	DAILY (+OR –)	CUMULATIVE (+OR –)	DAILY (+OR –)	CUMULATIVE (+OR –)	DAILY (+OR –)	CUMULATIVE (+OR –)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
	(+)	NO. OF DAYS	(+)	NO. OF DAYS	(+)	NO. OF DAYS	(+)	NO. OF DAYS
	(–)	NO. OF DAYS	(–)	NO. OF DAYS	(–)	NO. OF DAYS	(–)	NO. OF DAYS

- Show the number of days in the month you have overages (+)
- Show the number of days in the month you have shortages (–)

PLEASE NOTE: If the total number of minuses (–) (i.e., shortages) for any product exceeds eighteen (18) in any one month, this would indicate a possible problem. The problem could be theft, bookkeeping errors, inaccurate pump meters, tank truck delivery errors, or leaks in underground storage tanks and/or piping.

CHECK IT OUT. If you suspect a leak, notify your supplier immediately for further advice. If you know you have a leak, immediately notify your sales representative and appropriate authorities.

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STOCK MEASUREMENT

Receipt for Product Delivered by Tank Truck

The attendant should ensure that the product delivery form has been completed properly. Verify that the quantity of product delivered, together with the opening and closing dips are recorded on the delivery form by the driver. Maintain the delivery form on file for future auditing requirements. The amount of product delivered must be taken into account when comparing the tank dip measurement with the volume recorded on the delivery form.

Use of tank charts: Tank charts are supplied by the tank manufacturer and provide a listing of gallons (litres) beside the equivalent inches (centimetres) of measurement as registered on the gauge (dip) stick.

After using the dip stick to determine the depth of liquid in the tank, select the proper column on the tank chart and proceed as follows:

1. For dip stick measurements which are to the exact inch or centimetre, record the product volume from the chart.

2. For dip stick measurements which are 1/2" or 1.25 cm over or under the exact inch or centimetre, proceed as follows:

   (i) Note the two measurements on the chart for the exact inch (cm) readings which are above and below the actual reading on the dip stick.
   e.g. If the dip stick reading for liquid in a 5000 gallon tank (22730 litres) is 48.5 inches (121.25 cm), note the chart volume at 49 inches (122.5 cm) and 48 inches (120 cm).

   (ii) Subtract the volume shown on the scale for these two readings:

   Chart reading at 49 inches (122.5 cm) = 3039 gallons (13816 litres)
   Chart reading at 48 inches (120 cm) = 2963 gallons (13470 litres)

   Difference = 76 gallons (346 litres)

   (iii) Multiply this volume by .5 (1/2 inch or 1.25 cm)

   76 gallons (346 litres) × .5 = 38 gallons (173 litres)

   (iv) Add the volume shown on the chart opposite the exact inch (cm) measurement to the 1/2 inch (1.25 cm) volume calculated in (iii):

   Volume at 48 inches (120 cm) = 2963 gallons (13470 litres)
   Volume at 1/2 inch (1.25 cm) = 38 gallons (173 litres)

   Total = 3001 gallons (13643 litres)

   In this example, the liquid volume measurement for the dip stick measurement at 48.5 inches (121.25 cm) indicates 3001 gallons (13643 litres) of liquid in the tank.

3. If the above volume includes some water (as identified by the water detection paste), the actual volume of petroleum product is determined by subtracting the indicated amount of water from the total volume of liquid.

   Reference the above measurements of 3001 gallons (13643 litres) of liquid in the tank, if the indicated water gallons are 50 gallons (227 litres) the actual volume of petroleum product is:

   3001 gallons (13643 litres)
   less 50 gallons (227 litres)

   Total = 2951 gallons (13416 litres)

Note: It is important **not** to subtract the water dip from the total dip until the volumes are determined from the tank chart.

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Fact Sheet

Leaking underground storage tanks

The old saying, "out of sight out of mind" applies perfectly to one of Canada's most difficult and potentially damaging, yet relatively unknown, environmental problems — leaking underground storage tanks. Leakage from underground storage tanks can pose a very real threat of contamination to groundwater and to the safety of nearby residents.

Because these tanks are literally out of sight, it can be very difficult to monitor their condition and the possibility of leakage. When leakages do occur, it is often too late to prevent environmental damage, despite costly remediation efforts. Even after extensive cleanup, at least 50 per cent of leaked substances remain in the ground.

The Problem

Underground storage tanks are commonly used by all sectors of society as a convenient way of storing fuels. Slightly less than half of underground storage tanks are located at retail gasoline outlets. Many tanks containing gasoline or heating oil are found at customer locations such as taxi fleets, bus lines or farms. Still others are used by industries of all types, large buildings and institutions like hospitals and schools. In the industrial sector, some underground tanks are used to store a variety of chemicals.

Thousands and thousands of underground storage tanks were installed across Canada in the 50s and 60s. Most of these were made of painted or unprotected steel. And, just as cars corrode and rust, so do buried steel tanks. Eventually the rust penetrates the tank and a leak occurs. The rate at which a leak develops is dependent upon many factors, including the corrosive characteristics of the soil around the tank and the quality of the tank's installation. Thus, the useful life of these tanks may vary considerably. In general, it is in the order of 20 to 25 years, and many tanks are now approaching their end.

It is estimated that 5 to 10 per cent of the underground storage tanks now in use are leaking; anywhere from 7,500 to 20,000 tanks. This is a sizable problem, and as the average age of the tank population increases, the number of leaking tanks is expected to rise dramatically.

While the magnitude of the threat to the public from contaminated groundwater varies across the country according to groundwater usage, the danger to public safety from the seepage of flammable or toxic vapours into basements is national in scope. It is a possibility whenever and wherever tanks leak.

Unprotected steel tanks may quickly corrode causing costly spills and groundwater contamination and can threaten human health.

The Threat to Groundwater

The extent to which Canadians depend upon groundwater, the "invisible resource", is a surprise to many people.

- Approximately 6.2 million people, or 26 per cent of the population of Canada, rely on groundwater for their domestic water supply.
- Approximately 38 per cent of all municipalities rely either entirely or partially on groundwater.
- Approximately 87 per cent of water used for livestock comes from groundwater.
- Prince Edward Island is 100 per cent dependent upon groundwater.
- New Brunswick, Saskatchewan, Nova Scotia and the Yukon Territory depend upon groundwater for about half of their domestic water supplies.

It does not take much of some contaminants to ruin groundwater — the leakage of a mere litre of gasoline from an underground storage tank could render one million litres of water unfit for use.

Everyday materials such as gasoline and heating oil are harmless when properly handled, but trace amounts in the wrong places can spoil water for consumption or create a safety hazard.

Prevention

Once contamination has occurred, effects can persist for decades. Most of the time, proper technology to clean up contaminated aquifers simply does not exist; if it does, it is either impractical or prohibitively expensive. The answer must lie in better early detection to minimize damage and in stronger efforts to prevent releases in the first place.

Whose Problem Is It?

Leakage is of concern to all who rely on groundwater, to those who might be exposed to vapours following a release, to those who own or operate underground storage tanks, and to all Canadians who care about their environment.

The primary responsibility for developing and enforcing legislation dealing with underground storage tanks rests with provincial and municipal authorities. Environment Canada acts as a catalyst to promote better understanding and to increase knowledge of technical and environmental problems among all those who have a stake in the issue.

Under the leadership of Environment Canada, a task force made up of federal, provincial and territorial agencies and the industries concerned is currently working to develop national technical standards for the design, construction, installation and operation of underground tanks for petroleum products.

What Can I Do?

If you are a tank owner or operator, there are measures which you can take to reduce significantly the likelihood of a tank leak, and to minimize the impact of a leak should one occur.

You should institute a sound technical tank management program. Information on this is available from the organizations listed below.

As a minimum you should:

- know the age of your tanks
- know the material of construction; i.e., steel, fibreglass, etc.
- carry out an accurate and regular inventory control program, and keep good records where applicable
- ensure that existing installations meet government regulations and industry standards
- ensure that new tank installation is done by qualified contractors and is according to government regulations
- ensure that tanks which are permanently taken out of service are properly decommissioned, and
- report the location of any old abandoned underground tanks to the provincial Department of the Environment or provincial Fire Marshall's Office.

LEAKING UNDERGROUND PETROLEUM STORAGE TANKS
TANK LEAKAGE CAN CAUSE A NUMBER OF PROBLEMS

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Management of Underground Petroleum Storage Inventory

Retail Gasoline
Dealers Association
of Nova Scotia

Automotive Retailers
Association of
British Columbia

Automotive Retailers
Association of Alberta

Association Des Services
de l'automobile Inc.
du Quebec

Automotive Aftermarket
Retailers of Ontario

Prince Edward Island
Retail Gasoline
Dealers Association

Retail Gasoline
Dealers Association
of New Brunswick

Thunder Bay
Association of
Automotive Trades

**AUTOMOTIVE
TRADES
ASSOCIATION**
OF SASKATCHEWAN

**The National
Automobile Trades Association
of Canada**

The use of these procedures will assist in management of underground tanks and related systems which will result in a high level of safety and pollution control while maximizing profits.

CONTACT YOUR ASSOCIATION IF YOU HAVE ANY QUESTIONS CONCERNING INVENTORY CONTROL

N.A.T.A. Member Associations

Retail Gasoline Dealers Association of Nova Scotia
Retail Gasoline Dealers Association of Prince Edward Island
Retail Gasoline Dealers Association of New Brunswick
Automotive Service Association Inc. of Quebec
Automotive Aftermarket Retailers of Ontario
Thunder Bay Association of Automotive Trades
Automotive Trades Association of Saskatchewan
Automotive Retailers Association of Alberta
Automotive Retailers Association of British Columbia

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INVENTORY CONTROL PROCEDURE — GASOLINE AND DIESEL DAILY INVENTORY CONTROL RECORD

DATE:

TIME:

Record all pump meter readings (litres) for each product at close of day. Pumps should be numbered for consistency.

Add individual pump meter readings together for each product and enter these totals in Line "A" under the appropriate product.

Determine pump meter reading totals for each product from Line "A" of the previous day. Enter these totals in Line "B" (Total Yesterday's Closing Pump Meter Readings).

Deduct "B" totals from "A" totals to arrive at the number of litres dispensed for each product this day. (Enter these amounts in Line "C".)

Record the Opening Inventory (in the underground storage tanks) by referring to the quantities that appeared in the "Inventory on Hand" (Line "G") from previous day inventory control record.

Determine today's storage tank inventory to be accounted for by adding together the Opening Inventory and Products Purchased this Date ("D" plus "E").

	PUMP METER READINGS			
PUMP NO.	PREMIUM UNLEADED	REGULAR UNLEADED	REGULAR LEADED	DIESEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
(A) Total Today's Closing Pump Meter Readings				
(B) Total Yesterday's Closing Pump Meter Readings				
(C) Total Litres Dispensed Today (A minus B)				

STORAGE TANK DIPS			
TANK	PRODUCT LEVEL (cm)	LITRES	WATER LEVEL (cm)
PREMIUM UNLEADED			
1			
2			
TODAY'S Tank Dip Totals (enter in Line G)			
REGULAR UNLEADED			
1			
2			
TODAY'S Tank Dip Totals (enter in Line G)			
REGULAR LEADED			
1			
2			
TODAY'S Tank Dip Totals (enter in Line G)			
DIESEL			
1			
2			
TODAY'S Tank Dip Totals (enter in Line G)			

Dip all underground storage tanks for each petroleum product at close of day.

Convert product level (centimetre reading on dip stick) to litres using the dip conversion chart.

Always check for water when dipping tanks. Apply green water finding paste to bottom 10–12 cm on dip stick. Water level is indicated by paste turning red. More than 5 centimetres of water or any unaccountable increase indicates a potential leak.

Add and record fuel litres in all tanks for each product and enter TODAY'S Tank Dip Totals for each product in Line "G" (Inventory on Hand).

(D) Opening Inventory (i.e. Yesterday's Tank Dip Totals)				
(E) Products Purchased This Date				
(F) Tank Inventory to Be Accounted for Today (D Plus E)				
(G) Inventory On Hand (TODAY'S Tank Dip Totals)				
(H) Gone from Tanks Today (F minus G)				
SHORTAGE (IF H GREATER THAN C)	(−)	(−)	(−)	(−)
OVERAGE (IF C GREATER THAN H)	(+)	(+)	(+)	(+)

PRODUCTS PURCHASED THIS DATE

Invoice No. ____________________

Time of Delivery: ____________________

Product	Quantity*
Premium Unleaded	
Regular Unleaded	
Regular Leaded	
Diesel	

(*Enter these numbers in Column "E")

If you received a delivery of product today, record invoice number, time of delivery and quantities (litres) received for each product.

Enter these quantities received in Line "E" (Products Purchased This Date).

Determine the amount of each product that left the underground storage tanks today by subtracting the Inventory on Hand (Line "G") from the Tank Inventory to be Accounted for Today (Line "F").

If "Gone from Tanks Today" (Line "H") is greater than "Total Litres Dispensed Today" through the pump meters (Line "C"), you have a shortage.

If "Total Litres Dispensed Today" (Line "C") is greater than 'Gone from Tanks Today" (Line "H"), you have an overage.

Transfer daily shortages and overages to "Monthly Petroleum Product Inventory Summary" available for each month in this book.

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MANAGEMENT OF UNDERGROUND STORAGE TANK SYSTEMS

Proper management of your underground storage tank system is essential. Accurate daily inventory and stock control and good operating procedures remain the most effective way to ensure that your site is functioning properly, and that any product loss is identified early before there is a serious environmental or safety problem. Remember, SAFETY is your prime concern.

To assist you in maintaining effective records, N.A.T.A. has developed specific procedures for inventory control. A step-by-step documentary of what these procedures involve is shown in the video "Management of Underground Storage Tanks", produced by Ultramar Canada Inc. Copies of this video may be obtained by contacting:

Ultramar Canada Inc.
Environmental Protection Department
2020 University St.
Montreal, P.Q. H3A 2L4

(514) 499-6425

INVENTORY CONTROL PROCEDURES

The use of these procedures will:

1. Minimize the hazards of pollution from leaking underground tanks and piping.
2. Minimize the hazards of gasoline vapours originating from leaking underground tasks and piping.
3. Minimize product loss.

ALL personnel involved with the handling of bulk petroleum products in underground tank systems must be familiar with inventory procedures and follow them.

I. PRODUCT LOSSES

A. Detection of Product Losses

Product losses can occur in several ways; e.g., leaking tanks and lines, spills, theft and meter errors. These losses may be detected by:

1. Following the procedures for daily product measurement and reconciliation.
2. Regular inspection of fill pipe area to detect evidence of spills.
3. Removal of pump cover and physical inspection for leaks at least on a quarterly basis. More often is preferred.
4. Inspection of land around the property to detect evidence of gasoline surfacing from a leaking facility.

5. Detection of vapours in the vicinity of the facility.

6. Loss of pump suction or indication of air passing through the pump. These can result from a leaking line or defective foot valve.

7. Accumulation of water in tanks.

B. Indicated Losses Resulting from Errors in Product Level, Measurement or Record Keeping (No Actual Loss of Product)

These types of "apparent" losses, while not causing environmental or safety problems, can result in losses of revenue to your business.

These "apparent" losses can be caused by:

1. **Faulty meter calibration:** If the dispenser meter is not properly calibrated, the actual volume dispensed will not correspond to the meter reading. Reconciliation of meter readings and tank dips would not be possible. Good records including meter maintenance and calibration history should assist in identifying this problem.

2. **Product used from the underground tank when meters are calibrated:** Any product removed from the tank system must be accounted for.

3. **Error in measurement of volume of product in tank:** Tank dips of underground tanks must be made properly and the product level read accurately. Care and accuracy is required when using the tank chart to convert the dip stick reading to a volume measurement and when recording meter readings.

4. **Errors in arithmetic:** Care must be taken when reconciling tank dips with meter readings to ensure that variations are not produced by errors in arithmetic.

Product variations, which deviate from normal allowances, may be detected by effective inventory control. This can avoid "run outs" and identify potential problems with underground tank leaks.

II. RECEIPT OF PRODUCT DELIVERED BY TANK TRUCK

A. Deliveries to locations where there is an attendant:

1. Ensure that underground tanks are accurately dipped and that measurements are recorded prior to the product being unloaded. Check also to ensure that there is enough space in the underground tanks to safely accommodate the quantities to be unloaded.

2. If product is not being metered off, check the marker level to determine how much product is in each compartment.

3. All underground tanks must be colour coded and labeled to identify the product stored. All manifold discharge valves on the vehicle must be tagged to identify the product. Before any unloading is started ensure the correct product is being unloaded into the proper tank.

4. After the delivery is completed, check that each compartment is empty.

5. Dip the tanks again. Compare the volume increase to the amount delivered. The two figures should be the same once any sales through the pump during the delivery process are taken into account.

6. Verify that the delivery record is correct and that both the dips and amount delivered are entered correctly on the form.

7. Enter the invoiced totals on the daily record and file the delivery forms.

B. Deliveries to locations where there is no attendant:

1. Check that a product delivery form has been left at the location by the driver and that it includes the following entries:

   a. the quantity of product delivered;
   b. an opening delivery dip; and
   c. a closing delivery dip.

2. Dip the tanks to verify the "closing" dips on the delivery form before opening for business.

   IMPORTANT
   Contact your supply point **immediately** if:
   — a delivery form was not left; and/or
   — the detail on the form is incomplete or illegible; and/or
   — there was a spill of product around the fill pipe; and/or
   — your dip varies more than 8 centimetres with the product quantity entry on the delivery form; and/or
   — the dipped quantity received varies from the delivery form by more than 0.5%.

III. MEASUREMENT OF PRODUCT IN UNDERGROUND TANKS — MUST BE DONE AT LEAST ONCE PER DAY

A. Use of gauge (dip) sticks to measure volume of product in the tank:

1. Check condition of gauge (dip) stick. To ensure an accurate reading, the stick should not be frayed or have any missing numbers.

2. Coat the bottom 8 centimetres of the dip stick with a thin, even film of water detection paste. The coating should be on the side of the dip stick with the graduated depth markings. (The paste is unaffected by gasoline but changes colour when in contact with water.)

3. Remove the underground tank fill cap and lower the dip stick slowly into the fill pipe of the tank until the tip of the stick touches the tank bottom.
   CAUTION: Do not drop or bounce the stick. This can create product splash and give you an inaccurate reading, as well as damage the tank bottom.

4. Hold the dip stick inside the tank for the time period specified for use of water detection paste.

5. Withdraw the dip stick and read the product and water "cuts" to the nearest 1.0 centimetre and record.

6. Use a cloth to wipe off the petroleum product and detection paste and repeat the above procedure to ensure accurate measurement.

7. Replace the tank fill cap and secure.

8. Repeat this procedure for each tank.

9. Record your readings in the appropriate boxes on the daily dip form.

B. Use of tank charts:

Tank charts are supplied by the tank manufacturer and provide a listing of litres beside the equivalent centimetres of measurement as registered on the gauge (dip) stick. The conversion readings on the charts progress two centimetres at a time. After using the dip stick to determine the depth of liquid in the tank, select the proper column on the tank chart and proceed as follows:

1. Dip stick measurements are to the nearest centimetre.

2. Tank charts are usually in increments of 2 centimetres. If the dip stick reading is an even number, determine the total volume in the tank and the quantity of water. To determine the actual amount of product subtract the water (if present) from the total volume. (NOTE: For odd numbers see number 4 below.)

3. Record this figure (volume in litres) in the box on the Inventory Control Record.

4. For dip stick measurements which are an odd number:

    a. Note the conversion for the even centimetre readings above and below the actual reading on the dip stick.

    b. Determine the difference by subtracting the higher amount from the lower amount.

    c. Divide the difference by 2 and add this figure to the lower amount and record this figure as the volume.

    For example:
    If your reading is 139 centimetres:
    — 140 cm on the chart reads 14605.
    — 138 cm on the chart reads 14349.
    — Subtract to determine the difference, 14605 - 14349 = 256.
    — Divide this figure by 2 and add to lower amount, 256/2 = 128 + 14349 = 14477.
    — Use 14477 litres as the volume.

    NOTE: This procedure is used for both the product and the water volumes.

IV. RECONCILIATION OF TANK MEASUREMENTS AND BOOK INVENTORY

A. Procedures for Reconciliation of Tank Measurements

The purpose of this reconciliation procedure is to verify the pump meter readings and/or to identify unaccounted for differences between tank measurements and meter readings. A Daily Inventory Control Record form has been supplied and provides a means to:

a. establish a consistent format for completing the reconciliation procedure

b. maintain a daily record (ledger) of the meter readings, tank dips, and overages and shortages.

Normally pump readings are taken after the last sale of the day or when it is not busy. **If readings are taken at different times, the product sold will show up as a shortage.**

1. Assign each nozzle of each pump a number so that you can record that particular reading at the same place on the record sheet each time. This makes it easier to track down which pump has a problem.
2. Record pump meter readings for each product.
3. Total the figures for each product.
4. Enter totals on the record sheet as "**Today's** Closing Pump Meter Readings" **(Block A)**.
5. Enter "**Yesterday's** Closing Pump Meter Totals" (from yesterday's sheet) below today's readings **(Block B)**.
6. Subtract yesterday's figures from today's to determine the "Total Litres Dispensed Today" **(Block C)**.
7. Enter "**Yesterday's** Tank Dip Totals" as today's "Opening Inventory" **(Block D)**.
8. Transcribe quantity figures from the section "Products Purchased This Date" to columns in **(Block E)**.
9. Total figures in Blocks D and E to determine the "Tank Inventory to Be Accounted for Today" **(Block F)**.
10. Transcribe today's dip totals from the section "Storage Tank Dips" to columns for "Inventory On Hand" **(Block G)**.
11. Subtract figures in Block G from those in Block F to determine the amount of product "Gone from Tanks Today" **(Block H)**.
12. Compare the amount of product gone from the tanks today **(Block H)** to the amount of litres dispensed today **(Block C)**.
    a. If the amount dispensed is greater than the amount gone from the tanks, enter amount as an **overage**.
    b. If the amount gone from the tanks is greater than the amount dispensed, enter amount as a **shortage**.

An example of a completed Daily Inventory Control Record can be found on the following page.

GASOLINE AND DIESEL DAILY INVENTORY CONTROL RECORD

DATE:

TIME:

PUMP METER READINGS

PUMP NO.	PREMIUM UNLEADED	REGULAR UNLEADED	REGULAR LEADED	DIESEL
1	*145990*	*427059*	*126101*	
2	*112758*	*436338*	*335057*	
3		*212017*		
4		*153874*		
5				
6				
7				
8				
9				
10				
11				
12				
(A) Total Today's Closing Pump Meter Readings	*259248*	*1229288*	*461158*	
(B) Total Yesterday's Closing Pump Meter Readings	*257825*	*1221487*	*457320*	
(C) Total Litres Dispensed Today (A minus B)	*1423*	*7801*	*3838*	

STORAGE TANK DIPS

TANK	PRODUCT LEVEL (cm)	LITRES	WATER LEVEL (cm)
PREMIUM UNLEADED			
1	*194*	*21106*	*0*
2			
TODAY'S Tank Dip Totals (enter in Line G)		*21106*	
REGULAR UNLEADED			
1	*218*	*23454*	*0*
2			
TODAY'S Tank Dip Totals (enter in Line G)		*23454*	
REGULAR LEADED			
1	*124*	*12545*	*0*
2			
TODAY'S Tank Dip Totals (enter in Line G)		*12545*	
DIESEL			
1			
2			
TODAY'S Tank Dip Totals (enter in Line G)			

	PREMIUM UNLEADED	REGULAR UNLEADED	REGULAR LEADED	DIESEL
(D) Opening Inventory (i.e. Yesterday's Tank Dip Totals)	*10486*	*11256*	*9211*	
(E) Products Purchased This Date	*12000*	*13611*	*6000*	
(F) Tank Inventory to Be Accounted for Today (D Plus E)	*22486*	*24867*	*15211*	
(G) Inventory On Hand (TODAY'S Tank Dip Totals)	*21106*	*16884*	*12545*	
(H) Gone from Tanks Today (F minus G)	*1380*	*7983*	*2428*	
SHORTAGE (IF H GREATER THAN C)	(−)	(−) *182*	(−)	(−)
OVERAGE (IF C GREATER THAN H)	(+) *43*	(+)	(+) *142*	(+)

PRODUCTS PURCHASED THIS DATE

Invoice No. *063281*

Time of Delivery:

Product	Quantity*
Premium Unleaded	*12000*
Regular Unleaded	*13611*
Regular Leaded	*6000*
Diesel	

(*Enter these numbers in Column "E")

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B. Procedures for Monthly Petroleum Product Inventory Summary

In addition to the Daily Inventory Control Record, you must also complete a Monthly Petroleum Product Inventory Summary. This form is used for recording the overages and shortages to determine the cumulative overage or shortage for the month.

1. Transcribe the overages or shortages figures from the daily inventory control record.
2. Add or subtract the daily figures to yesterday's cumulative figure to determine today's cumulative loss or gain.
   Example:
   a. Yesterday there was a cumulative shortage of −280 litres.
   b. Today's daily inventory shows an overage of 43 litres.
   c. New cumulative figure, −280 + 43 = shortage of 237 litres.
3. At the end of the month, total the number of days for which you had an overage and/or a shortage. Enter these figures at the bottom of the form.

   A completed example of this Monthly Inventory Summary can be found on page 357.

IMPORTANT

You could have a problem situation if you had:

— more than 18 shortages in a month
— a pattern of unexplained loss. Losses should be less than 0.5% of throughput per tank.

Check out possible reasons for the discrepancies in the reconciliation (e.g., theft of product, arithmetic errors, pump requiring calibration, delivery errors, or leaks) and if the figures are accurate, **report the situation immediately** to your marketing representative or area office.

This completes the procedures for reconciliation of tank measurements and book inventory. To assist in identifying leaking tanks and for tax reasons, the provincial government regulations require *completion and retention of these reconciliation records for a two year period*. N.A.T.A. recommends the retention of these records for two years at the site. Following this two year period, these records must be permanently stored in a safe location.

MONTHLY PETROLEUM PRODUCT INVENTORY SUMMARY

Month Year

	PREMIUM UNLEADED		REGULAR UNLEADED		REGULAR LEADED		DIESEL	
	DAILY (+ OR −)	CUMULATIVE (+ OR −)	DAILY (+ OR −)	CUMULATIVE (+ OR −)	DAILY (+ OR −)	CUMULATIVE (+ OR −)	DAILY (+ OR −)	CUMULATIVE (+ OR −)
1	+256	+256	−257	−257	−252	−252		
2	−241	+15	−85	−342	−257	−509		
3	+254	+269	+226	+116	+193	−316		
4	−257	+12	−205	−89	−63	−379		
5	+250	+262	−258	+169	+178	−201		
6	−56	+206	−257	−88	−72	−273		
7	+72	+278	+72	−16	−16	−289		
8	−143	+135	−56	−72	−88	−377		
9	+258	+393	+250	+178	+169	−208		
10	−226	+167	−241	−63	−72	−280		
11	−205	−38	+256	+193	−63	−343		
12	−85	−123	−257	−64	+193	−150		
13	+43	−80	+128	+64	+50	−100		
14	−200	−280	−143	−79	−72	−172		
15	+43	−237	−182	−261	−88	−260		
16	+256	+19	−257	−518	+169	−91		
17	−241	−222	−85	−603	+193	+102		
18	+254	+32	+226	−377	−72	+30		
19	−257	−225	−205	−582	−63	−33		
20	+250	+25	+258	−324	−16	−49		
21	−56	−31	+153	−171	+72	+23		
22	+72	+41	−257	−428	−16	+7		
23	−143	−102	+72	−356	−72	−65		
24	+258	+156	−56	−412	−88	−153		
25	−226	−70	+250	−162	−178	+25		
26	−205	−275	−241	−403	+63	−38		
27	−85	−360	+256	−147	−88	−126		
28	+256	−104	+128	−19	−112	−238		
29								
30								
31								
	13 (+)	No. of Days	13 (+)	No. of Days	9 (+)	No. of Days	(+)	No. of Days
	15 (−)	No. of Days	15 (−)	No. of Days	19 (−)	No. of Days	(−)	No. of Days

— Show the number of days in the month you have overages (+).
— Show the number of days in the month you have shortages (−).

Please Note: If the total number of minuses (−) (i.e., shortages) for any product exceeds eighteen (18) in any one month, this would indicate a possible problem. The problem could be theft, bookkeeping errors, inaccurate pump meters, tank truck delivery errors, or leaks in underground storage tanks and/or piping. CHECK IT OUT. If you suspect a leak, notify your supplier immediately for further advice. If you know you have a leak, immediately notify your sales representative and appropriate authorities.

V. COMMUNICATION REGARDING LARGE DISCREPANCIES IN PRODUCT RECONCILIATION

A. Contact your supplier marketing representative or supplier area office when:

1. A review of the summary reveals an unexplained pattern (first verify all readings and tank dips to ensure the accuracy of the reconciliation). Product losses should be less than 0.5% of throughput.
2. The total number of daily minus readings for any product exceeds 18 in any one month and a check of the reading does not immediately identify the problem.
3. Inspection of the surrounding land shows product surfacing or collecting in noticeable quantities.
4. Inspection of pumps and visible equipment indicate the presence of a leak.
5. There are indications of petroleum product vapours in sewers, basements, underground cable vaults in the vicinity of your underground tank(s).
6. You notice the pump is losing its prime or air is passing through the dispenser.
7. There is a noticeable accumulation of water in the tank(s) (over 3 centimetres).

B. Contact your supply point when:

1. Tank dips taken subsequent to an "unattended" delivery and prior to opening for business differ by more than 8.0 centimetres from those reported by the driver on the delivery form.
2. There is evidence of spilled product around the fill pipe.
3. The product delivery form was not left by the driver.

C. Emergency Phone Numbers:

To ensure prompt reporting it is necessary to keep an up-to-date list of the following numbers prominently displayed near your phone:

- Service station manager
- Sales representative and alternate
- Supply point
- Reliable contractors
- Fire department
- Police
- Appropriate Government authorities

D. Spill Response:

Safety has to be of prime concern. Only take action to clean up if it can be done safely:

1. Secure area.
2. Stop source if possible.
3. Prevent spillage from entering sewers, ditches, etc.
4. On small spills, use sorbent to clean up. On larger spills, call for HELP.

NOTE: Sorbent material must be stored on-site for emergency use.

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- Environment Canada
- The Retail Gasoline Dealers Association of Nova Scotia
- Ultramar Canada Inc.

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TEACHER SUPPORT MATERIAL

WAREHOUSE SERVICES 36

COURSE SEQUENCE

Warehouse Services 36 is the final course in the Warehouse Services 16–26–36 sequence. This sequence is one of three that comprise the transportation occupational cluster.

Warehouse Services 36 orients students to explore the warehousing industry. Students demonstrating appropriate interests, attitudes, levels of participation and basic competencies should be encouraged to complete the warehouse services sequence and consider complementing it with one or more related course sequences; e.g., automotive services, business services, service station services.

ENTRANCE REQUIREMENT

Students taking Warehouse Services 36 must have completed satisfactorily Warehouse Services 26 or an equivalent course.

INSTRUCTIONAL LOCATIONS AND FACILITIES

Schools already teaching an automotive parts merchandising program may wish to integrate teaching Warehouse Services 36 with the merchandising course. An automotives parts lab located adjacent to the automotives shop may be a suitable situation, as it provides a stockroom environment sufficiently authentic to instil a sense of responsibility in the students. Where a lab is not available and/or where integration of students is not possible, two alternatives are suggested:

1. Use the school's receiving and stock control area, bookstore, cafeteria or automotives storage/receiving areas.

2. Establish and use community partners to provide students with on-the-job instruction, under a teacher's supervision, for the majority of the course.

Basic equipment, tools and supplies suggested for an in-school warehousing program include:

Equipment

Computer and printer
Filing systems/cabinets
Forklifts (assorted)
Microfiche reader
Pallette
Pallette jack
Protective safety clothing
Shelving
Storage bins/tubs
Stretch film/shrink wrap machine

Tools

Cutting tools
- razor knife
- scissors
- snips

Hand and power tools
Heat gun
Software
- word processing
- inventory control

Supplies

- Assorted parts; e.g., automotive
- Forms/documents
  - shipping
  - receiving
  - bills of lading
  - WHMIS
- Labels
  - shipping
  - WHMIS
- Packaging materials
  - assorted fill
  - boxes
  - cartons
- Stretch film/shrink wrap
- Warehousing catalogues

OTHER LEARNING RESOURCES

Ackerman, Kenneth B. *Practical Handbook of Warehousing* (2nd Edition). The Traffic Service Corporation, Washington, 1986.

Briggs, Andrew J. *Warehouse Operations, Planning and Management* (2nd Edition). John Wiley and Sons, New York, 1960.

Eastman, Robert M. *Materials Handling*. Marcel Dekker Inc., New York, 1987.

Hilgenberg, Gene and Jane Huston. *Employment in Agribusiness*. Mid-American Vocational Curriculum Consortium, Stillwater, Oklahoma, 1984.

Kulwiec, Raymond A. (ed.) *Materials Handling Handbook* (2nd Edition). John Wiley and Sons, New York, 1985.

Other potential references include:

Telephone/Business/Advertising Directories

Warehousing and Supply House Catalogues.

ACHIEVEMENT PROFILES

Alberta Education is reviewing the possible use of achievement profiles to report student performance. As a part of this review, examples of achievement profiles will be made available to schools offering the Integrated Occupational Program. School administrators and teachers will be asked to provide their comments and suggestions about these sample profiles and to share other examples of profiles in local use.

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